

JPRS-TND-93-001  
7 January 1993



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## ***JPRS Report***

# **Proliferation Issues**

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# PROLIFERATION ISSUES

JPRS-TND-93-001

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7 January 1993

[This report contains foreign media information on issues related to worldwide proliferation and transfer activities in nuclear, chemical, and biological weapons, including delivery systems and the transfer of weapons-relevant technologies.]

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## ANGOLA

### **MPLA Said Dropping Chemical Bombs in Ndalatando**

*MB0101201493 (Clandestine) Voice of Resistance of the Black Cockerel in Portuguese to Southern and Central Africa 1900 GMT 1 Jan 93*

[Text] The Popular Movement for the Liberation of Angola's [MPLA] air force once again bombed the city of Ndalatando today. Correspondent Vivaldo Prata says MPLA aircraft repeatedly dropped chemical bombs. The attack took place at about 1300 [1200 GMT], resulting in the death of a number of civilians. A black chemical cloud, which is already affecting children, is hovering over the city at the present moment. The danger could increase as the bombing continues and the density of the chemical products deposited in space is now greater.

## LIBERIA

### **Rebel Leader Taylor Reportedly Acquires CWs**

*AB3012101392 Monrovia Radio ELBC in English 0900 GMT 30 Dec 92*

[Text] ECOMOG [Economic Community of West African States Cease-Fire Monitoring Group] authorities say that have received reports that Charles Taylor [president, National Patriotic Front of Liberia, NPFL], with the assistance of his supporters, has acquired chemical weapons. ECOMOG forces are therefore warning that they will not tolerate the use of chemical weapons in Liberia, especially on ECOMOG forces, or civilians in Liberia.

At a news conference yesterday [29 December], ECOMOG Field Commander Adetunji Olurin, warned of the grave consequences of using such weapons in this country, adding that ECOMOG will retaliate fully against the NPFL if any chemical weapons are used in Liberia.

Under international conventions, the field commander said, chemical weapons are not allowed to be used in modern days. The ECOMOG field commander then reiterated ECOMOG's neutrality in the Liberian conflict, saying the force would not have fought had it not been attacked by the NPFL on October 15.

Meanwhile, the field commander, General Olurin, has called on journalists to be mindful of journalistic ethics, especially during this period in Liberia.

## SOUTH AFRICA

### **ANC 'Deeply Concerned' About Nuclear Program**

*MB2212111492 Johannesburg SAPA in English 0941 GMT 22 Dec 92*

[SAPA PR Wire Service issued by African National Congress [ANC] Department of Information and Publicity: "ANC Concern About the South African Government's Nuclear Activities and Ambitions"]

[Text] The African National Congress [ANC] is deeply concerned about reports emanating from Europe and the United States about South Africa's nuclear activities and ambitions.

The reports disclose the following: 1. The International Atomic Energy Agency (IAEA) has determined that South Africa secretly produced several hundred kilograms of high enriched uranium (HEU). 2. This large HEU inventory indirectly confirms that South Africa has an active and secret nuclear development programme, since no South African nuclear facility requires uranium enriched to levels above 45 percent U-235. 3. Given new estimates of the amount of fuel needed for a country to make a nuclear weapon—Iraq planned to make a bomb with about fifteen kg, South Africa's presumed inventory could fuel about 25 nuclear weapons.

This estimate is consistent with the calculation done by Leonard Specter of the Carnegie Endowment for International Peace. In 1987 he stated that South Africa possessed about twenty nuclear weapons. 4. IAEA inspectors recently visited on short notice an abandoned facility near the Pelindaba uranium enrichment complex. They are said to have found equipment used to work on the shape of spherical fissile cores for a nuclear explosive device. 5. This site, known as "Building 5,000", was long suspected by Western governments as a nuclear weapons development centre in the 1970's. 6. Based on what it has learnt about activities at the nuclear weapons site, the U.S. is reported to have asked South Africa to declare that it had a nuclear weapons program. 7. A CIA report made public under the Freedom of Information Act is said to reveal that Jacobus de Villiers, now the chairman of the AEC [Atomic Energy Council], had been "directly involved in weapons design work at the Pelindaba nuclear research centre" period up to 1979.

These reports raise some disturbing questions:

Is the De Klerk government deliberately concealing the possession of weapons grade material?

Has the weapons program been stopped?

The NP [National Party] government must declare the extent of its nuclear weapons program now. To continue their policy of secrecy and uncertainty amounts to holding the people of South Africa hostage to a possible nuclear threat.



Waldo Stumpf, the chief executive of the AEC is reported to have stated in response to a question on SA's possession of nuclear weapons, "you must be naive if you think I am going to answer that question". Statements of this nature by Mr. Stumpf and his colleagues are designed to leave South Africa and the international community guessing in the hope that the mere thought of the regime possessing nuclear weapons will act as a deterrent and have a restraining influence on voices calling for democracy in South Africa.

On both points, hiding high enriched uranium from the public and the possession of nuclear weapons, South African officials have stated that they are not compelled to disclose any information in terms of the Non-Proliferation Treaty (NPT). But the responsibilities of the government to the people of this country are much greater than what is contained in the NPT.

The De Klerk government and the AEC must reveal to all South Africans and the international community the nuclear program that it has pursued in the past, and is still pursuing. Stubbornly clinging to one interpretation of the NPT contributes to their continued crisis of legitimacy and suspicion of their motives for wanting to conceal nuclear capabilities. By revealing the extent of the nuclear program, all South Africans will be able to see what has been done in their name in the past, and it will help us to deal with this serious issue in the future. Furthermore, by disclosing the extent of South Africa's nuclear program prior to signing the NPT, South Africa can set a good precedent for other nations to follow.

The African National Congress is deeply concerned that South Africa could still be involved in secretive nuclear activities at a time when the country eagerly awaits the introduction of a democratic government. To continue to act clandestinely and give ambiguous answers on nuclear matters undermines the important process of building the confidence of all South Africans in the process of democratizing our country.

The ANC has long been opposed to the militarism of the apartheid regime. We have also stated our opposition to the building, stockpiling and use of nuclear weapons. We believe that secret control of nuclear facilities, of undeclared stocks of weapons grade material, and possibly nuclear weapons by the minority regime and its military and intelligence agencies holds potential dangers for the people of our country and the whole southern African region.

Control of nuclear facilities is a matter which should be taken up at an early opportunity by the transitional and interim government.

We are of the view that adherence to the NPT requires full cooperation by South Africa and other countries. In particular, we cannot allow our country to exclude some of its nuclear processing facilities and their complete records from inspection by the IAEA.

The assertion by the NP government that the Valindaba plant has been mothballed and is therefore exempt from inspection is suspect. If there is no activity at the plant there can be no reason for not opening it to inspection. Furthermore, to say that the NPT does not require South Africa to reveal nuclear activities prior to signing the agreement and that therefore such information will not be disclosed is tantamount to a confession of an ongoing nuclear conspiracy.

We are deeply concerned that weapons grade fissile material, and even nuclear weapons, may be concealed from our people and the international community.

The De Klerk government must admit the full extent of their nuclear weapons program and weapons grade uranium stockpile now.

### Disposal of Weapons-Grade Uranium Poses Problems

*MB2712153092 Johannesburg SUNDAY STAR in English 27 Dec 92 p 9*

[Report by political correspondent David Breier: "The Dump of Death"]

[Text] International concern is growing at South Africa's suspected stockpile of highly-enriched uranium, lethal enough to kill millions with cancer.

The uranium was enriched at Pelindaba during the "total onslaught" era when the government developed the capability of making nuclear bombs.

Although South Africa signed the Nuclear Non-proliferation Treaty (NPT) last year undertaking not to make nuclear bombs, nobody knows what to do with the dump of death now that it has no military function.

Western sources told the SUNDAY STAR they accepted that South Africa now had no possible strategic use for nuclear weapons.

But they said the real problem was that the country was lumped with the monumental headache of what to do with what is believed to be between 200 and 400 kg of weapons-grade uranium.

Bad though South Africa's problem is, it is a fraction of the headache facing Russia and the United States, which are beginning to dismantle their vast nuclear arsenals after the end of the cold war.

The De Klerk Government signed the NPT last year, subjecting itself to International Atomic Energy Agency (IAEA) inspections which have reportedly revealed that South Africa had secretly produced several hundreds kilograms of weapons-grade uranium in the 1970s and 1980s.

The journal NUCLEONICS WEEK estimates the country has enough weapons-grade uranium to make about 25 nuclear bombs.

The journal also claimed an IAEA short-notice inspection found equipment for making "fissile cores" for nuclear bombs at an abandoned site known as Building 5,000 near the Pelindaba reactor.

The Atomic Energy Corporation [AEC] has denied that nuclear bomb-making equipment was stored at the mothballed building, but the AEC is not saying whether the country ever had a nuclear development programme.

This week the African National Congress [ANC], reacting to a growing number of international reports on

South Africa's secret uranium stockpile, accused the government of holding the people of South Africa hostage to a possible nuclear threat.

But Western sources pointed out that a possible future ANC government would have exactly the same headache as the nuclear stockpile could not simply be destroyed, shipped away or thrown into the sea, but would be lethal for centuries.

There is also growing international concern at South Africa's continued missile development programme as rockets used to launch satellites could also be used to deliver nuclear bombs. South Africa is believed to have developed missiles jointly with Israel.

## JAPAN

## Reports Continue on Transporting Plutonium

## Tokyo To Review Controls

OW1412063092 Tokyo KYODO in English 0422 GMT  
14 Dec 92

[Text] Tokyo, dec. 14 KYODO—Japan will review domestic controls on nuclear materials and reconsider its policy of not publicizing routes used to transport plutonium, Science and Technology Agency sources said Monday.

An agency study group of nuclear specialists and scholars will meet Wednesday to discuss Japan's future management of nuclear materials like plutonium.

Japan recently faced strong international criticism for using world sea lanes to ship one ton of reprocessed plutonium from France for use in one of this country's fast breeder reactors.

Some countries have alleged that Japan is trying to accumulate plutonium to develop a nuclear weapons program.

The government, acting on instructions by the International Atomic Energy Agency (IAEA), kept secret the route of the 4,800-ton plutonium carrier Akatsuki Maru to prevent a hijacking at sea.

Officials said they will reconsider how far a more open information policy could go without compromising safety in an effort to regain international trust.

The storage and transport of nuclear materials as well as reprocessing facilities are subject to IAEA inspections and domestic controls.

The officials said Japan is the first nonnuclear power planning to set up a full-scale reprocessing facility.

## Tokyo May Review Shipments

OW2112130692 Tokyo NHK General Television  
Network in Japanese 1000 GMT 21 Dec 92

[From the "NHK News" program]

[Text] A top Foreign Ministry official has suggested that the government might possibly review the way plutonium is transported to Japan after the Akatsuki Maru, Japan's plutonium-carrying vessel, completes its voyage from France. The Akatsuki Maru is currently on its way to Japan with a cargo of plutonium.

The official noted that, although the Japanese Government has given adequate consideration to the issue of safety in the Akatsuki Maru's first mission, it has failed to win full support from those countries whose waters

through which the Akatsuki Maru is sailing. The official said that the government may consider better transportation methods after drawing lessons from this experience.

## Ship To Berth at Tokai Port

OW2812065492 Tokyo KYODO in English 0540 GMT  
28 Dec 92

[Text] Tokyo, Dec. 28 KYODO—Japan's plutonium-carrying ship Akatsuki Maru will dock at Tokai Port, Ibaraki Prefecture, virtually on schedule on January 5, a government source said Monday.

A complex of atomic power-related plants is located in the village of Tokai, some 140 kilometers northeast of Tokyo.

"There's no need to conceal the schedule" for docking, the source said, referring to the government's position not to unveil the plutonium ship's schedule and route.

The Akatsuki Maru left France on November 7 with a ton of plutonium destined for Japan's fast breeder reactor Monju in Tsuruga, Fukui Prefecture, on the Sea of Japan coast.

But he said the schedules and routes of future plutonium shipments from Europe to Japan will be kept secret to prevent hijackings at sea.

The Greenpeace environmentalist organization monitored the Akatsuki Maru for much of its route south from France via the Cape of Good Hope in South Africa.

The ship is known to have then sailed south of Australia and veered north to traverse the Tasman Sea and the Pacific Ocean.

The Akatsuki Maru is currently traveling at about 14 knots off the Caroline and Marshall Islands in the Pacific Ocean.

## Anti-Nuclear Groups Petition Against Plutonium Use

OW3011062492 Tokyo KYODO in English 0555 GMT  
30 Nov 92

[Text] Tokyo, Nov. 30 KYODO—Antinuclear groups across the country submitted petitions opposing the government's plutonium energy policy to the Science and Technology Agency on Monday, organizers said.

The organizers said some 45,500 people signed the groups' petitions against the use of plutonium, asking the government to suspend current nuclear energy policies.

In the petitions, the groups urge the government not to operate Japan's first plutonium-fueled fast breeder reactor Monju, located in Tsuruga, Fukui Prefecture, and halt shipments of the highly radioactive substance from Europe.

They also called for scrapping of the plan to construct the country's first nuclear fuel reprocessing facility in the village of Rokkasho in Aomori Prefecture, the organizers said.

The groups insisted that the use of plutonium for nuclear power plants will pose grave danger to the people.

Monju, with a capacity to generate 280,000 kilowatts of electricity, is slated to begin nuclear fission early next year.

Japan plans to transport some 30 tons of plutonium from Britain and France by 2010 for the nuclear energy use.

The 4,800-ton freighter Akatsuki Maru is now heading back to Japan with a ton of plutonium from France and the shipment has caused worldwide controversy, with environmentalists and some nations expressing concern about a possible disaster if something happened to the ship and its deadly cargo.

#### Scientists To Develop New Plutonium Nuclear Reactor

OW2712090092 Tokyo KYODO in English 0843 GMT  
27 Dec 92

[Text] Tokyo, Dec. 27 KYODO—Japan's Atomic Energy Research Institute will start a new scientific program to develop a high converter reactor that can efficiently use plutonium, officials said Sunday.

The Atomic Energy Commission has already begun studying if the plan should be included in the long-term plan of the nation's basic nuclear energy policy.

The high converter reactor, if developed, is expected to prevent a buildup of excess plutonium because the nation's plan to develop the fast breeder reactor (FBR), which is hoped to consume much of the nation's plutonium supplies, has been delayed, the officials said.

The high converter reactor is a new type of nuclear reactor which uses a combination of uranium and plutonium. It uses light-water for cooling its reactor like a light-water reactor.

The spaces between each fuel rod in the new reactor are narrower than those in current light-water reactors so that the quantity of cooling water between fuel rods can be reduced.

When the fast breeder reactor is put into practical use, the high converter reactor can be changed to consume only uranium like conventional nuclear reactors by changing its reactor structure and arrangements for fuel rods, the officials said.

The institute started studying the high converter reactor in 1985 and has concluded recently that it is possible to develop the reactor using the related systems and techniques used in light-water reactors.

Japan has a policy of not possessing unnecessary plutonium.

The plutonium supply is expected to reach 85 tons by 2010, 30 tons of it enriched and shipped from Europe, and 55 tons reprocessed at domestic plants.

The Science and Technology Agency expects the supply to meet the demand for fuel, which is forecast to be about 35 tons for fast breeder reactors and 50 tons at existing nuclear power plants.

The semi-governmental Power Reactor and Nuclear Fuel Development Corp. is developing a prototype fast breeder reactor, called "Monju" in Tsuruga, Fukui Prefecture, central Japan, but the project has been delayed.

The government has not yet decided on other sites for building more fast breeder reactors.

Some scientists doubt if the existing nuclear power plants will consume 50 tons of plutonium because it costs more than uranium fuel.

#### NORTH KOREA

##### Newspaper Cautions Japan Against Building N-Arms

SK2312053692 Pyongyang KCNA in English  
0456 GMT 23 Dec 92

["Japan's Conversion Into Nuclear Power Fraught With Actual Danger—KCNA headline]

[Text] Pyongyang December 23 (KCNA)—The Japanese Government recently endorsed a so-called "white paper" that makes it its policy to largely produce, introduce and stockpile plutonium. It envisages the building of large-scale reprocessing facilities for extracting plutonium in Japan and, at the same time, continuous shipment of plutonium into the country.

Noting that this fully reveals Japan's militarist posture and nuclear design, a NODONG SINMUN by-lined article today presents materials indicating that Japan's nuclear armament has reached a practical stage.

It says:

To meet the demand of the policy of converting Japan into a nuclear power, the development of nuclear arms and preparation for their production are being actively promoted overtly and covertly in Japan. It has laid nuclear material and technical foundations and stockpiled large quantities of nuclear materials allegedly for a "peaceful purpose".

The investment into the nuclear domain amounted to 1,730,000 dollars in 1954. But it skyrocketed to 360 million dollars in 1991 and there are more than 150 companies and 3,300 factories engaging in this domain.



Japan is annually extracting nuclear materials enough to manufacture 50 nuclear bombs of 20 kiloton class, while continuously introducing plutonium from abroad. It has a plan to extract, introduce and possess more than 100 tons of plutonium enough to make far more than ten thousand nuclear bombs of 20 kiloton class by 2010.

The Japanese "self-defense forces" are being armed with various kinds of nuclear equipment capable of delivering and launching nuclear warheads and dropping nuclear bombs and depth bombs.

The article further says:

Working to arm itself with nuclear weapons and become a nuclear power, Japan intends to grab the position of a military power and realise its old dream of "the greater East Asia coprosperity sphere".

For the rulers of Japan, a defeated nation and the only victim to nuclear bombs, to seek nuclear armament will lead Japan to destruction.

The Japanese Government authorities must act with discretion, mindful of the lesson of history.

#### **Arrival of Russian Nuclear Specialists Thwarted**

*SK2012025892 Seoul KBS-1 Radio Network in Korean 0200 GMT 20 Dec 92*

[Report by ASSOCIATED PRESS and YONHAP from London]

[Text] According to the British SUNDAY TIMES, Russian security authorities on 8 December prevented the departure of an airplane heading from Moscow to North Korea with 36 Russian nuclear weapon specialists aboard. This paper quoted a Russian security authorities' source who said that all 36 nuclear weapon specialists were arrested. This paper reported that the Russian authorities' action was a dramatic measure to frustrate North Korea's ambition to develop nuclear weapons.

The SUNDAY TIMES also reported that North Korean authorities hired these Russian scientists, who had worked for a Russian nuclear weapons research institute, at monthly salaries ranging from \$1,500 to \$3,000, to assist North Korean nuclear weapon development.

#### **Missile Technicians Held in Moscow**

*SK2212001392 Seoul KBS-1 Radio Network in Korean 2200 GMT 21 Dec 92*

[ASSOCIATED PRESS and YONHAP from Moscow]

[Text] Russia's Security Ministry said yesterday that it has recently banned 64 missile technicians from departing the country.

(Kandahrov), spokesman of the Security Ministry said in an interview with the ASSOCIATED PRESS that security personnel hauled in scientists who were trying to

depart the country from the Moscow Airport on 15 October and 5 November and released them after holding them temporarily.

Prior to this, THE SUNDAY TIMES of the United Kingdom reported on 20 December that Russian security personnel took 36 nuclear experts employed by North Korea after banning an airplane carrying them from taking off on 8 December and that some of the nuclear experts are being questioned now.

#### **JNCC Chairman Choe U-Chin Holds News Conference**

*SK3012110092 Pyongyang Korean Central Broadcasting Network in Korean 1048 GMT 29 Dec 92*

[News conference by Choe U-chin, the North side's chairman of the Joint Nuclear Control Committee [JNCC], with domestic reporters at the People's Palace of Culture in Pyongyang on 29 December—recorded]

[Text] [Unidentified NODONG SINMUN reporter] I am a NODONG SINMUN reporter. There have been many differences in views between the two sides in the course of the Joint Nuclear Control Committee meetings. In particular, our side has proposed that North-South inspections be conducted to verify denuclearization, and the South side has proposed that South-North mutual inspections be conducted. Would you elaborate on differences between these proposals?

[Choe U-chin] We have proposed that inspections be conducted to verify the denuclearization of the Korean peninsula. The South side has proposed that South-North mutual inspections be conducted, however. This means that the South side favors symmetric inspections and inspections of an equal number of sites based on the principle of reciprocity. As I have already explained, the South side has proposed that if we go to South Korea and inspect the U.S. nuclear weapons and nuclear bases, the South side, in return, inspects our side's military bases based on the principle of reciprocity. This also means that in case we go to South Korea and inspect, for example, 50 sites, the South side will inspect 50 of the North's sites under the pretext of mutuality.

This is a proposal inappropriate in the actual situation on the Korean peninsula.

As I have already stressed, we have proposed that the North and South conduct nuclear inspections based on the principle of simultaneously dispelling doubts and, particularly, in compliance with the North-South agreements. The inspection we favor is an inspection designed to completely and thoroughly achieve the denuclearization of the Korean peninsula, and the inspection based on the principle of reciprocity, that is, the principle of inspection of an equal number of sites and the principle of symmetric inspection, is an inspection designed for the South side to fulfill its insidious purpose by inspecting sites other than sites for nuclear inspection under the pretext of nuclear inspection.

[Unidentified Korean Central News Agency reporter] I am a Korean Central News Agency reporter. Basic meetings [kibonhoeui] are very important in the operation of the JNCC. The South side has avoided basic meetings but insisted on only members' contacts, however. Would you elaborate on why the South side has done so?

[Choe] As for relations between basic meetings and members' contacts of the JNCC, holding basic meetings is the JNCC's basic mission. Holding basic meetings of the JNCC is stipulated in the Agreement on the Establishment and Operation of the North-South JNCC. Members' contacts are adjunct meetings of the basic meetings, and are held as authorized by the basic meetings. Therefore, JNCC basic meetings must take place first and be main meetings. These days, the South side has consented to only members' contacts, however, and avoided holding the JNCC basic meetings.

If the South side has the will to implement the joint declaration on denuclearization, has the true intention of bringing an end to the threat of nuclear war, and has the intention of resolving the fundamental point of consideration [paeryojjom] being raised in the adoption of the inspection rules, it should come to the basic meeting of the JNCC. Taking into consideration the South side's assertion as well, we want to promote the members' contacts as well.

[Unidentified Korean Central Broadcasting Committee reporter] I think that in implementing the joint denuclearization declaration, the first thing to do is to adopt an agreement for its implementation. Reviewing the entire process of the JNCC meetings to date, we note that the South side turned away from adopting the agreement, however, insisting only on adopting the inspection rules. What do you think about this matter?

[Choe] As I have already mentioned, the adoption of the agreement for the implementation of the joint declaration on the denuclearization of the Korean peninsula has

already been agreed on between the North and the South. Only when we adopt the implementation agreement, can we realize the denuclearization of the Korean peninsula completely and thoroughly. The South side is unwilling to adopt the agreement for the implementation of the joint denuclearization declaration because it lacks the will to realize the denuclearization permanently, completely, and thoroughly, we think. Because we maintain that the agreement should specifically state not only the matter on eliminating the threat of nuclear war but the matter on how to ban the receipt, placement, and deployment of foreign nuclear weapons as well.

[Unidentified MINJU CHOSON reporter] The work of the JNCC is not progressing smoothly at present. This worries not only the people at home and our compatriots overseas but the people of the world as well. What is your view of its prospects?

[Choe] The JNCC is now facing a grave crisis. But we are not pessimistic about it, for neither the North nor the South can block the implementation of the joint denuclearization declaration. The joint denuclearization declaration was adopted and effectuated reflecting the yearning of the entire nation. It was effectuated with the approval [pijun] of the highest persons in authority [choego tanggukcha] of the North and the South. Therefore, the South side should not and cannot unilaterally revoke or nullify the joint denuclearization declaration. For this reason, we think that although the JNCC meetings are not making smooth progress at present, it will overcome the difficulty before long.

If the South side has the will to implement the joint denuclearization declaration, and if the South side's verbal emphasis on North-South inspection comes from its true intention, there will be no reason why the South side cannot come to the meeting at the date for the JNCC's basic meeting and at the date for the members' contact as we proposed. We, therefore, are not pessimistic but optimistic about its future.



## BULGARIA

### Radioactive Waste Storage Site Visited

AU2212211592 Sofia POGLED in Bulgarian  
Issue 50, 14 Dec 92 p 5

[Report by Boryana Borisova: "Does Novi Khan Threaten Us With a 'Second Chernobyl?'" ]

[Text] Few people know that 7 or 8 kilometers outside the village of Novi Khan in the Sofia district lies the only facility in Bulgaria for storing all forms of radioactive waste. It has existed for almost 30 years, and today has little free space left to store the discarded materials.

The shaft for storing the most highly radioactive waste is almost full, and the other wells have little free space left. Funds have been earmarked for modernizing the storage facility, but so far no one knows when this will happen. The issue of selecting a suitable new site has not even been raised. The last inspection of the facility was made on 21 May 1992 by a commission composed of representatives of the Environment Ministry and the Committee for Peaceful Uses of Atomic Energy, the mayor of Elin Pelin Municipality, and a Civil Defense representative. The commission concluded that "...from the ecological viewpoint no breaches of the requirements concerning the safe storage of waste have occurred."

No deviations from the established norms have been recorded. Because of its limited size, the storage site can no longer serve the role of a national facility, however. We need at least one other storage facility.

Moreover, "the immense volumes of low- and medium-level radioactive waste from the Kozloduy Nuclear Power Plant are to be processed on site at the Kozloduy Plant, then buried in a specially constructed receptacle designed for the long-term storage of the packed products obtained after processing. The site for building such a complex structure has not yet been selected."

The high-risk facility is very well protected. Until now no journalists have obtained access to the fenced-off site. The heavily guarded gates were opened for the first time to admit a POGLED team. We were given to understand that permission to do this can only be granted by representatives of the Institute of Nuclear Research and the Nuclear Energy Industry of the Bulgarian Academy of Sciences.

It is a strange fact that the background radioactivity is highest at the entrance to the storage site, which may be due to uranium seams under the earth. At the site the ground naturally slopes down toward the village of Novi Khan. With a population of 2,800 it is the largest village in the Elin Pelin Municipality, and is well-known for the large villa zone located nearby. Mayor Nikola Dinkov informed us that the village's underground water supply sources are located quite close to the storage facility. Twice a year, specialists from the former district drainage and water supply organization take samples of

the drinking water. No one has reported any results that give rise to concern. As regards other research studies, Mr. Dinkov admitted: "I cannot remember when the air purity was last tested.... The village has a natural background radiation level that gives no cause for alarm. The main cause of this background radiation may be the uranium ore processing shop near the neighboring village of Gabra. The ore is transported there through the surrounding villages in open trucks. Some time ago I was told that Russian tractors passed by at night hauling containers filled with waste...."

"A casting shop is located near the site. The workers there are not complaining of any illnesses, at least for the moment.

"Our only advantage is that this district is the safest in Bulgaria from the seismic viewpoint. Whether this is for good or ill, it is nonetheless a consolation for us."

We also visited the village's health service. Dr. Rakhila Nozharova is a pediatrician, and has been examining local people for the past 35 years. "We know about the existence of the storage facility," she said, "but have no other information. Over all these years, no one has bothered to investigate the local population, and I am recording a rise in the incidence of neoplastic diseases. For the moment, the findings are only conjectural. It is known that many young people have died of cancer. Two years ago the district hospital closed down its disease prevention department, and now no prophylactic examinations are conducted. Only the children are examined at the hospital in Elin Pelin before they start school. This year we discovered many eyesight anomalies, such as short- and long-sightedness and astigmatism, and the number of cases of spinal distortions has increased. I repeat, the findings are merely conjectural, however. One cannot assert with any certainty that the young people here suffer more diseases than elsewhere. Accurate data is needed to establish this."

Milko Milanov, a specialist from the Institute of Nuclear Research and the Nuclear Energy Industry, has visited the site most frequently. "Before the waste arrives at the site," he explained, "it has to be checked and monitored in the institute. The institute is equipped with the best combustion chambers fitted with proper biological protection. At first they present us with the documents that accompany the radioactive sources. We check whether the number marked on each source corresponds to the number recorded in the documents. After the waste has been completely processed, a procedure that may take several weeks, it is transported from the institute in special containers and buried underground. All the information on each individual source is recorded on computer: the date of delivery, the name of the enterprise from which it came, in what form it was delivered, and so forth. Periodically we submit reports to the Committee for the Peaceful Uses of Atomic Energy.

"Many people are asking whether it is possible to close down the storage facility. This question is senseless.

because the waste buried in the earth will stay there forever. The site near Novi Khan has been designated for such burial, and nothing can be changed."

No documentation on the storage facility is available. It is probably buried somewhere in the secret archives. There is no doubt that we need this information, however.

Just as before, the 60-decade site still continues to alarm the local people, despite the fact that the safety conditions are being observed.

### **Social Democrats Propose New Reactor for Kozloduy**

*AU2812142292 Sofia 24 CHASA in Bulgarian  
21 Dec 92 p 19*

[Text] Dertliev's Social Democrats say "yes" to nuclear power. As an expert from the Bulgarian Social Democratic Party [BSDP] put it to the Parliamentary Energy Industry Committee, the Kozloduy Nuclear Power Plant is the keystone in their energy concept.

The BSDP draft document advocates that our energy capacities be utilized in the most rational way possible. The construction of new generating plants is extremely expensive, and for the time being we cannot permit ourselves this luxury, the experts argue. Therefore, they say, the Kozloduy Nuclear Power Plant should form the foundation of our energy system.

The Social Democrats propose that an energy industry ministry be set up to handle state policy in planning, production, consumption, and control of the energy industry sector. All departments and sections connected with the energy industry should be transferred to the new ministry.

At the same time, the state energy companies should be given economic independence. The draft document also permits private individuals to operate energy installations.

The Social Democrats insist that the Kozloduy Plant's Nos. 1 and 2 reactors, which are now shut down, should be restarted this winter. They claim that the work completed on the reactor units has not increased their design safety level to any marked extent, and that their chief shortcoming still remains. According to the experts, this is the lack of a system to localize radioactive products in the event of an accident. On the other hand, the experts claim, the partial modernization of the reactors means that it is not necessary to shut them down permanently.

"If we continue to listen to advice from Europe, we will never start up these units. Europe will not solve the problems—it does not possess the technical capabilities, nor does this coincide with the interests of its politicians. We simply have to align ourselves in a timely way with the nuclear states—the United States and Russia," the BSDP concept states.

Unless standby capacities are available at the Kozloduy Nuclear Power Plant itself, we will have no guarantee of avoiding electric power cuts, however. It is unfair and harmful for the nuclear power plant to work flat out for six or seven months in the year, the document states. The reactors are not insured against defects and damage, and, at the same time they cannot in practice be replaced by other generating capacities, especially during the winter. Accordingly, the Social Democrats propose carrying out a new study and building a standby reactor unit at the Kozloduy plant, using the equipment delivered for the nuclear power plant at Belene.

The document points out, the No. 7 reactor must not suffer from the weaknesses found in the first two 1,000-Megawatt reactor units, however. To avoid this, one should take advantage of the work being carried out by the U.S. Westinghouse Company on updating the WWER-1000 reactors in Czecho-Slovakia. The draft document proposes that if this reactor unit is built, it should be put into regular service, using two of the smaller WWER-440 reactors as standby units.

Before building the No. 7 reactor unit, the infrastructure at Kozloduy must be greatly improved, however. According to the BSDP experts, the social facilities there are extremely inadequate, and confidence in the experts at the nuclear plant has been unjustly undermined. Unless normal working conditions are provided at Kozloduy, it would be naive to imagine that public opinion will support the building of a new reactor.

"The building of a seventh reactor at the Kozloduy plant is a ridiculous idea," comments Docent Yanko Yanev, chairman of the Committee for Peaceful Uses of Atomic Energy. In his view, the site at the nuclear power plant is not large enough for it, nor do there exist any objective conditions for such a construction project.

"I support the idea of a Bulgarian nuclear energy industry, but not at any price," Yanev says. It is inadmissible to continue to operate the Kozloduy Nuclear Power Plant in the manner used until now, he stresses.

According to Yanev, it would be more sensible to build a new nuclear power plant, and it should be at Belene. Such a plant must be equipped with a new generation of safe reactors, however.

## **YUGOSLAVIA**

### **Serbs Charged With Using CWs Near Brcko**

*LD2712093592 Zagreb Radio Croatia Network  
in English 0805 GMT 27 Dec 92*

[Text] Serb forces continue to pound the northeastern Bosnian town of Gradacac. Serb ground forces back-up tank support [as heard] are reported to have attempted to break through the town's defense lines, but were repelled. Defenders in Brcko are also said to have stopped Serbian tanks from penetrating the frontlines

there. Reports from the area charge Serbs with using chemical weapons in the latest attacks.

**Serbian Krajina Corps Denies Using Scud Missiles**

*LD2812203992 Belgrade TANJUG Domestic Service  
in Serbo-Croatian 1837 GMT 28 Dec 92*

[Text] Banja Luka, 28 Dec (TANJUG)—The command of the I Krajina Corps today denied claims that in the battles for Gradacac the Serb side used Scud surface-to-surface missiles.

In a statement issued today, the command says that reports about the use of the missiles on the Gradacac battlefield was broadcast by Croatian Radio on several occasions today.

The reports are described as yet another attempt to deceive the world public. It is also noted that on the Gradacac battlefield, Serb and Muslim forces are so close to each other that there is no need to use long-range Scud missiles.

The command of the I Krajina Corps also denies claims made by Croatian radio yesterday, to the effect that "Banja Luka war criminals" had arrested and taken into camps 250 Muslim and Croatian women."

According to the I Krajina Corps Command, Croatian radio quoted appeals by "10,000 Muslims and Croats still living in the Banja Luka area."

In its statement the command says that Croatian Radio did not specify the source of its report, and that "it would be interesting to know the names of some of those 10,000 Muslims and Croats still living in Banja Luka," so that they can confirm the Croatian Radio claims.

## INDIA

### Former Military Chief Discusses Nuclear Options

BK2912095592 Delhi INDIAN EXPRESS  
in English 20 Dec 92 p 1

[By former Army Chief K. Sundarji]

[Text] The fact that India is a threshold nuclear weapon power is no secret. As to which side of the threshold she is on is a secret, albeit a minor one.

The really big secret is that India has no coherent nuclear weapon policy options in this regard. This is not only a big secret but a self-perpetuating one, which does not need the official Secrets Act for its safeguard. Even if it is broadcast on All India Radio and Doordarshan, very few among the public or even in officialdom would believe that such a preposterous situation could exist.

Carrying on in this manner might not have damaged India's vital interests in the past, when ambiguity of nuclear policy used to bestow some benefits. The fact that such ambiguity was not planned or orchestrated, but occurred due to drift, was not material.

I believe that the continuance of an ambiguous nuclear policy from now on will be downright dangerous for two reasons. The first, due to the possibility of a war between India and Pakistan being triggered through miscalculation of each others' nuclear status, as well as ignorance of the nuclear doctrines that the two countries are likely to go by, which would culminate in a tragic nuclear exchange. The second, due to the difficulties of ensuring the safety of nuclear warheads and the prevention of unauthorised use when in a clandestine state.

Likewise, it is impossible to muddle along without a clear nuclear policy. When the pressures on us to sign the Nuclear Non-proliferation Treaty (NPT) are going to mount, we cannot even negotiate to advantage without knowing what our minimal acceptable position is, or should be. Whatever the policy decided upon, it must have the broad approval of the major political parties and the people. The aim should be to stimulate an informed public debate on the nuclear issue, which one hopes will not only assist in policy formulation but also in persuading the government to institutionalise strategic policy making and bring a degree of transparency to the exercise.

India has the following nuclear options arranged in descending order of toughness, say from the North Pole to the South Pole:

- Refuse to sign the NPT, declare a nuclear weapon status and indicate willingness to abide by the NPT and the Missile Technology Control Regime (MTCR) as a nuclear weapon power.
- Refuse to sign the NPT as it is discriminatory and insist on the right to continue retaining a nuclear option till there is universal nuclear disarmament,

continue development of missiles; indicate willingness to abide by the NPT and MTCR regarding the non-transfer of technology or materials to third countries.

- Sign the NPT; but retain the right to hold the weapons already fabricated and fissile material already stocked (capping), and the right to reprocess the already held weapons or fissile material to keep them effective; continue to develop missiles and abide by the MTCR regarding transfer to third countries.

- Sign the NPT; declare and destroy all fabricated weapons and fissile material; stop development of missiles for military purposes and accede to the MTCR.

The North Pole option will give us the maximum self reliance in ensuring our strategic defence, but will attract the maximum economic, technological and other sanctions. The South Pole option will attract no sanctions; but unless the world order changes and the existing nuclear weapon powers, including China, reduce their nuclear stockpiles drastically, it will reduce India to depending totally on others' goodwill and bounty in ensuring her own strategic defence. The two middle options, the equatorial ones, are compromises.

What we ought to do on priority, is to analyse the effects of the sanctions that are likely to be imposed on India in the event of our adopting any of the first three options. Assuming firstly that we continue our economic liberalisation at the present pace. Secondly that we go the whole hog with the liberalisation, making the rupee fully convertible, lifting all restriction on foreign investments and legislating for the safeguard of intellectual property rights. The second scenario might well undermine the sanctions regime quite fast.

Unless we carry out a study like this, we can never make a sound decision. Unless we make a decision, we cannot work out a game-plan as to how we should cope with the arm-twisting that has already begun. Nor can we decide as to what ought to be our lowest option, below which we cannot possibly go whatever the consequences. And what ought to be our starting position.

I do not know whether the government has carried out studies on these lines; if not we must do so at once as we do not have much time. The pressure is bound to increase when the Clinton administration takes over.

At the domestic political level, the first need, I think, is for the government to invite all major political parties for a non-partisan, incamera meeting on the nuclear issue; take them into confidence on the status of India's nuclear weapon preparedness, and attempt to arrive at a consensus. It might not be an easy decision to ask the BJP to participate in the post-Ayodhya atmosphere, but we must not lose sight of national priorities.

Next, the government must initiate a public debate on all aspects of this issue, and generate a national consensus. In the final analysis, this staunch public support will be



the bulwark on which any ill-conceived US plans of pressuring or bullying India will founder.

We must stop being defensive about not signing the NPT, and stop repeating old arguments. While this this [as published] parrot-like refrain about the NPT being discriminatory is undoubtedly true, it is wearing rather thin. The majority of the nations being discriminated against do not seem to mind very much being in that position most of them have signed the NPT over the years; there are only about 16 countries holding out today.

Of these, if you take out very small countries that have no interest or capability in nuclear matters, it only leaves India, Pakistan, Israel and perhaps Algeria. The world is increasingly viewing our tirade against the NPT for being discriminatory as mere sloganeering to keep our nuclear options open. This may be a legitimate requirement; however, to safeguard keeping that option open, we have to take a realistic approach and come up with workable proposals, which will also address the legitimate concerns of the world. It is being increasingly felt that we are just being obstructionist without being constructive [as published].

If we carry on this way without rethinking our stand, we may be stamped into a position where we cannot safeguard even our defensible interests.

#### U.S. Said Preparing To Extend NPT Beyond 1995

93WP0052A Calcutta *THE STATESMAN* in English  
24 Nov 92 p 16

[Article by Nandu R. Kulkarni]

[Text] BOMBAY, Nov. 23—The present nuclear Non-Proliferation Treaty [NPT], the nemesis of Indian scientist and technicians, is unlikely to end at the expiry of its validity in 1995. It is believed that the U.S.A. is preparing ground for its indefinite extension and applicability beyond 1995.

Experts at the Department of Atomic Energy and Bhabha Atomic Research Centre [BARC] are of the unanimous opinion that a meeting scheduled for November 1993 under the aegis of the International Atomic Energy Agency to deliberate upon the future of the NPT will only toe the line adopted by the five nuclear superpowers, in general, and the U.S.A., in particular. It is doubted whether certain amendments would be incorporated in the NPT in its present form to recognize countries like India, Israel and Pakistan as nuclear-power States.

Despite a not-so-impressive performance in nuclear power generation, India did achieve a distinction of exploding a device in May 1974. It certainly incurred the wrath of nuclear nations, the U.S.A., the erstwhile U.S.S.R., China, Britain and France, but helped in establishing India's credentials as a potential nuclear power nation.

Under the NPT countries which had exploded nuclear device before 1968 are automatically recognized as nuclear power States and are beyond the control of international safeguards. The five nuclear club nations are the only legitimate nuclear powers. They do not wish to amend the NPT and admit a fresh member. In a bid to retain their monopoly, other nations with impressive scientific records are often discouraged or harassed and blackmailed by the nuclear club.

The facilities for research and development at the BARC are of paramount importance for the country. Last year, two experimental reactors, Cirrus and Dhruva, respectively completed 30 and 10 years of their operations. Low power generation capacity and high neutron flux of experimental reactors are the main source of weapon grade plutonium the world over.

The plutonium used in the 1974 explosion is believed to have come from Cirrus. Since then the entire BARC establishment has been the target of the nuclear club nations, barring to a certain extent France.

Once India signs the NPT, all sensitive facilities would be under international safeguards. These units are quite vital for the implementation of the independent nuclear programme on the agenda of the scientists.

The scientists are apprehensive of a section of politicians who argue in favour of signing the NPT. Their contention is either produce bomb or sign the NPT. The counter argument is: In the national interest the option to produce bomb or not rests with India. Once India falls in line with the diktats of the club nations, it would surrender even that option. This will not only jeopardize the safety but would prove detrimental to the advancement of research and development.

The bilateral treaty between India and the U.S.A. that facilitated the setting up of the first atomic power station at Tarapur, about 110 km north of Bombay, expires in 1993. It will relieve much of the pressure being exerted on India with certain modification and ensured supply of enriched uranium as fuel for the plant from France would help in extending the life span of Tarapur's twin units.

Interestingly, Tarapur does have a reprocessing plant meant for extracting plutonium from spent fuel. But it so far has not been used to reprocessing the spent fuel since the U.S.A. feels that the plutonium thus generated would be used as fuel in other plants. At present, spent fuel has been piling up for the past 20 years. Neither did the U.S.A. show interest in owning and transporting this spent fuel. A crucial decision on this would be taken early in 1993.

What further worries the nuclear club nations is the expertise acquired by the BARC in building experimental reactors. Last year, India offered to sell two such reactors to Egypt and Iran. It was quoted at a competitive price of \$70 million. It was pointed out that the same design and model would cost about \$140 million

for a German model. Under the international pressure, the sale was shelved. Even countries like Japan disapproved of this sale and it apparently linked it to the financial help in other fields. The arm-twisting tactics temporarily worked.

France, which generates 70 percent of its energy requirement through nuclear power plants, has been exceptionally considerate towards India.

#### **Editorial Considers Future Dialogue With U.S.**

93WP0053A Madras *THE HINDU* in English  
20 Nov 92 p 8

[Editorial: "Towards New Ideas on the Nuclear Question"]

[Text] India's diplomatic dialogue with the United States on the question of nuclear non-proliferation may soon take a more substantive turn. The assumption is that the incoming Clinton administration might keep up the momentum of the Bush administration's bilateral parleys with Delhi. What is not clear at this time is whether the U.S. President-elect, Mr. Bill Clinton, would give India some benefit of the doubt. The current dialogue is, in essence, a reflection of Mr. George Bush's willingness to give India a hearing before considering steps to create a nuclear weapons-free zone in South Asia. It is possible that Mr. Bush was guided by a desire to extend a courtesy to India, following his talks with the Prime Minister, Mr. P. V. Narasimha Rao, in New York in January this year. All the same, the fact remains that the ongoing dialogue with Washington has given India ample scope to argue its case for retaining its nuclear option in view of the prevailing security environment in Asia and the world at large.

Now, Mr. Clinton, for his part, has already made a commitment to stop "the proliferation of weapons of mass destruction—nuclear, biological and chemical." Coincidentally, this categorical statement was made at about the same time as the latest round of talks between the U.S. and Indian officials in Washington. The U.S. State Department officials must have been aware of the bipartisan support that such policy might receive on Capitol Hill. Not surprisingly, they discussed with the Indian delegation, led by Mr. C. Das Gupta, some significant specifics without bothering about the withering mandate of the Bush administration. Of particular importance is the U.S.'s suggestion that India and Pakistan might consider a joint declaration of intent to stop producing fissile materials that could be used to produce nuclear weapons.

On the face of it, this is an eminent suggestion, more so in the context of the recent decisions by the U.S. and Russia to limit their production of fissile materials. But Washington has no credible answer to a commonsensical question. Why should Delhi follow the example of two declared nuclear powers at a time when another member of the so-called nuclear club—China which is of enormous significance to India's security concerns—lets an

impression prevail that it is in a class of its own? Not only that. The Indian officials have correctly pointed out a truism that a global approach, and not an Indo-Pakistan pact, would be a meaningful step towards realistic nuclear non-proliferation. New concepts such as "rogue States" (as in the case of Mr. Saddam Hussein's Iraq) and nuclear armament legacies (as in the case of some former Soviet republics) do not also apply to India.

Apparently, in this context, the Bush administration has vaguely acknowledged that India faces a unique security situation—in the absence of global nuclear disarmament which has not so far figured among the priorities of the nuclear club. And, the U.S. State Department officials seem to have asked Delhi to suggest new ideas to address the China factor. The urgency of new ideas may be heightened by a Clinton presidency. One such proposal, short of India's renunciation of the nuclear option, is that India and Pakistan should negotiate specific confidence-building measures in respect of the whole gamut of the nuclear question. But, the overall political atmosphere for a deepening Indo-U.S. dialogue is affected by the attitude of countries such as France which seems to harp on the Nuclear Non-Proliferation Treaty-related safeguards for fuel supplies to the Tarapur nuclear power plant.

#### **U.S. President-Elect's Stance on NPT Eyed**

93WP0054A Madras *THE HINDU* in English  
26 Nov 92 p 8

[Article by C. Raja Mohan: "Indo-U.S. Nuclear Dialogue"; first paragraph is *THE HINDU* introduction]

[Text] The Clinton regime could be more willing than the present one to look at the arms control significance of the China factor. This should open up avenues for a more realistic discussion of the nuclear issue between India and the U.S.

When the Indo-U.S. bilateral dialogue on nuclear and security issues began early this year, it was widely expected to be a dialogue of the deaf. The popular perception in India was that the United States was pressuring India to sign the Nuclear Non-proliferation Treaty [NPT] and hustling India to participate in a proposed five-power conference, including the United States, Russia, China, India and Pakistan, to discuss nuclear non-proliferation in South Asia. There was also the sense that India was using the bilaterals to stall the five-power conference and playing for time. Few had expected that the dialogue would serve any purpose.

At the end of the second round of bilaterals in Washington it is evident that the talks have become a forum for sustained and intensive dialogue between the two sides on issues ranging from global and regional arms control to security related subjects. Although the two sides remain far apart on many issues, there is greater appreciation of each other's security concerns and a readiness to engage in substantive discussion of agreements and disagreements.



No major breakthrough in the talks was expected this time given the on-going transition to a new administration in Washington. New Delhi's decision to send a delegation to Washington was a political gesture to demonstrate its good faith to keep up the momentum of New Delhi's constructive engagement of the United States on arms control issues. Contrary to the popular perception the Indo-U.S. dialogue may have the potential to emerge as a forum for building cooperation between the two countries on arms control.

Of significance is the demonstration of flexibility by the United States on the question of format for dealing with regional arms control and non-proliferation. The focus of the public attention has remained on the alleged American pressure on India to join the five-power conference. In the actual negotiations it appears that Washington has dropped all references to the five-power conference. The favoured term in the administration now is "multilateral process," which goes some way towards accommodating the Indian concerns over the larger linkages to the problem of proliferation in the Indian subcontinent. It also helps remove some of the confusion regarding the American proposal for the five-power conference and the Pakistani proposal for the three plus two conference focussed purely on South Asian non-proliferation. The American shift suggests that diplomatic life is beginning to go out of the Nawaz Sharif proposal.

The U.S. officials are at pains to suggest that they have no intention to impose a predetermined format on India. This is a far cry from the American position at the end of 1991.

The American flexibility on the mechanism and time-frame does not, however, imply that the United States has given up its objective of promoting a regional nuclear restraint regime between India and Pakistan. Nevertheless, the American flexibility opens the door for a more intensive bilateral Indo-U.S. discussion on the importance of coping with the external linkages, in particular China, the former Soviet Union and the new American concerns on Iranian proliferation.

From the current indications in Washington, there is a growing sense that a roll-back of the Indian nuclear programme would be impossible although the U.S. is unlikely to formally forswear such a goal. The only practical and realisable goal visualised is a mechanism for capping the nuclear capabilities of India. Washington is proposing a bilateral agreement between India and Pakistan to end the production of fissile material for nuclear weapons. India cannot accept such a regional arrangement, since its security concerns have never been limited to Pakistan. Besides, such an agreement would be a departure from the universalist Indian position on nuclear arms control. India, however, could live with a global, verifiable and non-discriminatory ban on the production of fissionable material for nuclear weapons. The American decision last July to unilaterally end its

own production of plutonium and highly enriched uranium does open the possibility for a serious and detailed Indo-U.S. discussion of such a nuclear freeze.

The freeze is only one example of the possibilities that have opened up to bridge the Indian disarmament position outlined in detail in the Rajiv Gandhi Action Plan on Disarmament submitted to the United Nations in 1988 and American non-proliferation concerns. At present the American positions on nuclear arms reductions and non-proliferation remain in separate watertight compartments. But the problem of preventing the leakage of nuclear material from the former Soviet Union and the importance of bringing China into the arms control process, both of which are of long-term interest to India and the United States, make the traditional separation of superpower arms control and non-proliferation impossible.

It need not be unrealistic to expect fundamental rethinking on these issues in the Clinton administration. There is a growing awareness in Washington of the China factor in defining the proliferation problem in the Indian subcontinent. The Clinton administration could be more willing than the present one to look at the arms control significance of the China factor. That should open up avenues for a more realistic discussion of the nuclear issue between India and the United States in the coming months.

The positive evolution of the Indo-U.S. nuclear dialogue, two rounds in less than six months, and the incipient change of guard in Washington provide an opportunity for the Indian political leadership to put forward an agenda of global, regional and bilateral arms control ideas that New Delhi could actively work for. The Indian Prime Minister has reiterated his commitment to the Rajiv Gandhi Action Plan. But much has happened since 1988 and many elements of the Plan have already become real agreements. The challenge now is to recast and reformulate the Action Plan, with special focus on a number of non-discriminatory global and regional agreements, which could be implemented pending the acceptance of the idea of nuclear abolition.

These could include, besides the global nuclear freeze, non-discriminatory safeguards systems that would monitor material flows within and across the nuclear weapon countries, internationalisation of commercial uses of plutonium and highly enriched uranium, returning the International Atomic Energy Agency to the original role of depository of the excess fissionable material from the nuclear-weapon States, international verification of the dismantlement of nuclear warheads in the United States and the former Soviet Union, delegitimisation of the use and threat of the use of nuclear weapons, international cooperation for the development of a new generation of inherently safe nuclear reactors, global abolition of the ballistic missiles, international cooperation among the democratic States in the development of defensive technologies, and reworking of the international export control mechanisms to make them more transparent and

genuinely multilateral. Not all these ideas are Utopian, and many of them are originally American. Some of these forgotten American ideas are now being revived and are gaining support.

At the regional and bilateral level, India could put across a more comprehensive agenda of confidence-building measures, including risk reduction centres and an Open Skies Treaty, which could generate greater military transparency and reduce the risk of a war between India and Pakistan on the one hand and between India and China on the other. An early political initiative on India's part, and its effective communication to the American arms control and non-proliferation community could be useful in refurbishing the arms control image of India and in influencing the formulation of a non-proliferation policy in the Clinton administration. A new Indian arms control initiative undertaken at the highest political level would help end the easy propaganda advantage that Pakistan has enjoyed all these years at India's expense. An imaginative Indian move could easily call the until now unchallenged arms control bluff of Pakistan.

## IRAN

### Germany Obligated to Complete Bushehr Station

LD2012204092 Tehran IRIB Television First Program Network in Persian 1530 GMT 20 Dec 92

[Text] The news report tonight is on the construction of the half-finished nuclear power station in Bushehr. Please pay attention to the report.

[Unidentified correspondent] The construction of an Iranian nuclear power station by Germany has for some time been a topic of discussion in the world's political and economic circles. Learning the views of experts and officials could help a solution of this matter.

In the context of peaceful bilateral cooperation between Iran and Germany, an agreement was signed in 1975, according to which the German Government assumed responsibility for issuing the necessary permits for the export of technology to Iran and the construction of the power station.

When the construction of the Bushehr power station was 85 percent completed, the victory of the Islamic revolution took place in Iran. The German Government then unilaterally stopped work on the construction of the power station. According to the judgement of the International Court, however, Germany was responsible for unconditionally placing the remaining parts at Iran's disposal.

Mr. Hajazi, the official in charge of the power stations of the Iranian Atomic Energy Organization, has said that the value of this deal was 8.5 billion German marks. Emphasizing the fact that the complex is only for peaceful water and electricity usage, he called on the

German Government to take the fundamental actions for the completion of the Bushehr power station. He said:

[Begin Hajazi recording] We think that the Bushehr nuclear power station is purely for the production of electricity and has no other purpose. Generally speaking, of course, we shall become familiar with nuclear technology, and because it has a peaceful function, no excuse is acceptable for the power station's non-construction or the blocking of its construction, which the German Government is doing. Taking into account the present good relations between the two countries, and the fact that there are many agreements on the verge of completion—an indication of the two countries' interest in the expansion of economic cooperation—we think it would be most appropriate for the German Government to pay attention to this project. Regarding the points and obligations which I pointed out earlier, the German Government should help us achieve the product of this great investment, for the permits of which we have been waiting for possibly more than 10 years. God willing, it shall be so. [end recording]

[Correspondent] Mr. Hajazi pointed out that Iran signed the nonproliferation treaty banning the military use of nuclear energy 15 years ago and considers itself bound to implement it. We have asked the International Atomic Energy Agency to inspect all Iranian nuclear power stations and installations. He said:

[Begin Hajazi recording] We have accepted the inspection of our nuclear installations by this international institute. Therefore we have in fact left the door of our nuclear installations open for these international inspections to take place. [end recording]

In the same context Mr. Musavian, the Iranian ambassador to Germany, in an interview with us presented an analysis of the arrested process of the German construction of Iran's nuclear power station. He said that the issue has existed since the early days of the Islamic revolution and has purely legal dimensions. He emphasised that the Siemens company thought that Iran has no interest in the construction of the power station, therefore it refrained from continuing its construction. For this reason, he said, we have, on several occasions, appealed to international authorities and have claimed damages for the losses caused as the result of the stoppage. He stated:

[Begin Musavian recording] We think that we have a contract, and also the judgement of the court, on the delivery of the parts, and according to international laws and regulations the German Government must issue the permits for the export of the parts to Iran.

In the past two years, in possibly over 200 meetings and discussions at a very high level, the issue has been discussed by the two countries. The issue has not been left aside. Maybe the most important matter that we have pursued is that of Bushehr. It was recently discussed by Foreign Minister Velayati and the German

chancellor. We have asked, and continue to ask, the Germans to deliver the parts and complete the power station. I think the Germans, due to the new situation and international limitations, have obligations to the Western complex and thus refrain from this obligation to Iran.

We shall have two choices: we can reach a compromise and find a solution satisfactory to both sides, with compensation for the damages caused to us in the past 10-12 years. Or we have to go to court again and the two countries will have to accept the verdict of the court. [end recording]

## IRAQ

### SAIRI Reports Execution of Nuclear Scientists

NC2712161092 (Clandestine) Voice of Iraqi People in Arabic 1500 GMT 27 Dec 92

[Text] The Supreme Assembly of the Islamic Revolution in Iraq [SAIRI] has affirmed that tyrant Saddam Husayn's regime recently perpetrated the crime of assassinating Iraqi atomic scientists.

In a statement released today, SAIRI said the order to execute the scientists was issued after they protested the assassination of Iraqi atomic engineer Mu'ayyad al-Janabi by the tyrant Saddam's intelligence service in Amman.

According to informed sources, the execution of the Iraqi atomic scientists was carried out because tyrant Saddam Husayn feared they would flee abroad and reveal the ostracized regime's secret armament program and the foreign companies which contributed to the program.

## PAKISTAN

### Work Begins on PRC-Supplied Nuclear Power Plant

BK2712085392 Islamabad THE NEWS in English 27 Dec 92 p 12

[Excerpts] Islamabad—Work on Pakistan's second nuclear power plant, the 300 MW Chashma Nuclear Power Plant (CHASNUPP), started on Saturday at Chashma in District Mianwali. [passage omitted]

The ceremony on Saturday was witnessed by ambassador of the People's Republic of China in Pakistan, Mr Zhou Qiang and chairman Pakistan Atomic Energy Commission, Dr. Ishtiaq Ahmad.

According to the Pakistan Atomic Energy Commission, the first concrete pouring in the reactor building of the Cheshma Nuclear Power Plant is expected to take place some time in August 1993 to be attended by "prominent personalities." The significance of this plant and the

strong ties with China are such that expectations are that either the president or the prime minister would attend.

The nuclear power plant, according to the PAEC, is being supplied under a contract signed in Beijing on December 31, 1991. The contract went into effect in February this year when down-payment was made to China by Pakistan. [passage omitted]

Interestingly, CHASNUPP will be an upgraded version of China's Qinshan nuclear power station which started producing electricity a year ago. The new plant will also have upgraded safety and efficiency features. [passage omitted]

### Envoy To U.S. on Nuclear Nonproliferation

BK0101092893 Islamabad Radio Pakistan Network in Urdu 0200 GMT 1 Jan 93

[Excerpt] Syeda Abida Hussain, Pakistan's ambassador to the United States, has said Pakistan honors the ideology of nuclear nonproliferation and has been implementing it as well. In a television interview in Islamabad, she said Pakistan has all along been stressing the need for declaring South Asia a nuclear-free zone, as it strongly believes in checking nuclear nonproliferation in order to make the world a secure place and a cradle of peace. She said if the United States plays any role in preventing the proliferation of nuclear arms in the region, Pakistan will welcome it. She made it clear that the proliferation of nuclear arms is not in Pakistan, but in India. [passage omitted]

### Nuclear Weapons Program Compared to India's

93WP0049A Lahore THE NATION in English 18 Nov 92 p 9

[Article by E.A.S. Bokhari: "India-Pakistan: The Calculus of Nukes"; quotation marks as published]

[Text] "My God what have we done?"—Capt. Robert Lewis, Co-pilot of the 'Enola Gay' (Hiroshima)—6 August, 1945.

India and Pakistan seem to have similar nuclear policies—at least the declared ones. Both the perennial belligerents are non-signatories of the discriminatory NPT (Non-Proliferation Treaty)—which is due for review in 1995—and both consider that a nuclear umbrella is essential for their security in view of each other's mounting militarism and conventional arms build up. In a way this status may be compared to the MAD (Mutual Assured Destruction) of the pre-cold war two superpowers, i.e., U.S.A. and Russia. Surprisingly the NWO (New World Order) which had spelled a unilateral cut in the armed forces and the deadly arsenals like missiles, has had no effect in strife-torn South Asia, and the race for arms goes on unabated.



Reverting back to the NPT, India says, perhaps with some justification, that NPT is terribly discriminatory and is hardly fair—and Pakistan would only sign it, if and when India signs it.

But the similarity of the nuclear programmes of these countries ends here—and there is a very great disparity and asymmetry in the way in which both these countries are actually carrying out their nuclear policies. India has already had a go at a nuclear explosion in 1974—and Pakistan according to the best information has the potential of enriching uranium for the fabrication of a bomb. With the possession of MiG29s, Mirage 2000 and Jaguars—and a host of missiles like 'Prithvi' and 'Agni'—India is much better placed as far as delivery systems are concerned. Pakistan has the option of using F-16s, but the Pakistani missile programme (i.e., ballistic missiles) is much less sophisticated than the Indian—especially in range and accuracy. Very little has come about the 'Hatf' series—whereas the Indian Press is full of the performance of 'Prithvi' and 'Agni' these days.

This short presentation considers the arithmetic of the bombs. At the very outset it should be understood that in the absence of any monitoring and declared figures, the calculus of nukes at the very best is a conjecture and a projection. In a way, it is a function of fissile material which both the countries are likely to produce. Pakistan has approached the enrichment problem through the uranium route and by the use of centrifuges while the Indian technology is largely plutonium-based. There is, however, evidence of the employment of centrifuges by India too. The Indian technology in a nutshell is that plutonium is produced by the transmutation of uranium when it is irradiated in a nuclear power or a research reactor. The plutonium is then separated from the untransmuted uranium and other radioactive by-products through chemical processing at a "reprocessing plant." Incidentally a plutonium bomb core was used in the Nagasaki bomb in 1945.

Now let us have some speculative figures of bombs, which Pakistan and India might have by say the end of 1992. First Pakistan. Pakistan had just one facility and according to some estimates, Pakistan might have about 365 kg of Weapons Grade Uranium (WGU). The requirement per bomb is about 15 kg of this material, leading us to a figure of 24 bombs (refer to Bulletin of the Atomic Scientists, June 1981). It is to be noted that Pakistan started production of WGU only in 1986 and production by the end of 1987 was not even 50 kg.

The Indians have a voracious nuclear programme and only 5 kg of plutonium (Pu) is needed for the fabrication of a bomb. There are a number of facilities in India and according to the same source which has worked out a figure of 24 for Pakistan, India is capable of producing 1019 kg of Pu. When we divide this by 5, we get a figure of 203 weapons, i.e., roughly 8.5 times the Pakistani projection.

There is an interesting presentation of the India-Pakistan bomb calculus in THE HINDU of New Delhi, issue of 15 September, 1992, which is based on the latest issue of SIPRI (Stockholm International Peace Research Institute), Sweden. The major contributor of the speculative work is David Albright. The work has also been highlighted in the Bulletin of Atomic Scientists.

Here is a quotation from HINDU "...According to the study, by the end of 1991, Pakistan may have produced between 100 and 200 kg of weapons grade uranium. Depending on the efficiency of the bomb design, this is enough material for six to thirteen nuclear weapons. It is estimated that India had accumulated an inventory of about 290 kg of weapons grade plutonium which would grow to 400 kg by the end of 1995. That would be enough for about 65 atomic bombs." It appears that the Indian Press has somewhat underplayed the ratio from 9 times to 5 times only.

The SIPRI study—which I have not seen as yet as my copy of the Year Book is still in the pipeline—is certainly revealing when it says "...There have been recurrent rumours that the 1974 (Indian) test was actually a second test—and the first test failed."

There is, however, no doubt that the Indians have now mastered plutonium technology and the metallurgy involved therein, which allows India to increase the purity of plutonium and reduces its losses in the ultimate manufacture of bomb components.

Some more revelations still include the assertion that "India has made important strides in developing advanced fission designs as well as working on fusion design, popularly known as the Hydrogen Bomb." India is also working on Uranium enrichment—and according to some reports there are several centrifuges (hundreds) near Mysore. Each centrifuge is said to have an annual output (throughput) of two or three separate Work Units.

Pakistan possesses about 14,000 centrifuges and only a percentage, perhaps never more than 15 per cent, have actually worked at a time—sometimes as few as just 1,000 have operated. Some problems have also been faced with the Dutch contraptions and German centrifuges, i.e., G-1 and G-2, may be used in place of these now.

There is yet another tailpiece to the SIPRI presentation showing that before her visit to Washington in June 1989, Benazir Bhutto had reportedly stopped weapons grade uranium production—a step which the U.S. Government, it is claimed, was able to verify. But when the Indo-Pakistan hostilities over Kashmir reached a peak in the spring of 1990, Pakistan resumed production and continued till some time in June 1991. All this I suppose is fairly fanciful if not conjectural.

In sum, the NWO should have produced some sort of sanity in the region but it appears that the nuclear world club is in fact expanding and there is hardly any check on

proliferation. It is time that sanity prevailed because it is only the most foolish who would order the first use of a bomb as this would spell simultaneous suicide and a nuclear winter.

#### **Purchase of Nuclear Plant From France Reported**

93WP0059A Lahore NAWA-I-WAQT in Urdu  
30 Nov 92 p 1

[Text] Lahore (from the correspondent): An agreement will soon be signed with France for the purchase of a nuclear plant and it is expected that the plant will soon arrive in Pakistan. Jean [?Masset], French ambassador to Pakistan, revealed these details this afternoon in the Lahore Press Club's program "Meet the Press" held in a local hotel. The French ambassador further stated that during the term of office of Zulfikar Ali Bhutto, the agreement to supply a reprocessing plant was canceled because of Pakistan's domestic situation; it has now been decided to give Pakistan 130 million dollars in monetary compensation. The decision was taken during Prime Minister Nawaz Sharif's visit to France in January 1992. The French ambassador said that France had a long tradition of economic and military relations with Pakistan, which it wished to strengthen even further especially in the military sector; that France had supplied submarines and Mirage planes to Pakistan's navy and air force as well as ground to air missiles; one-third of Pakistan's fighter planes and helicopters were French-made. In answer to a question, the French ambassador said that President Mitterand had given the green light for the sale of a nuclear reprocessing plant to Pakistan but that political conditions in Pakistan had taken a turn

that made it impossible for France to carry out the agreement and thus France had to pay monetary compensation. He said that France held the view that in order to achieve economic progress, every developing country had the right to benefit from nuclear technology. In answer to a question, he said that Pakistan should follow China's example and sign the nuclear nonproliferation treaty. He stated that France supported Pakistan's suggestion that a five-nation economic conference should be convened; that France had helped Pakistan's election as member of the Security Council. He expressed the hope that relations between the two countries would grow stronger in the future; that teachers were being brought together with a view to bringing the Urdu and French languages closer together; that Puma and Lama helicopters were being used with great success; Lama helicopters had demonstrated superior performance on the Siachen front and that Pakistan had signed an agreement to purchase 10 more of these helicopters. The French ambassador emphasized the need for greater economic cooperation between the two countries and said that language difficulties would be solved soon; that he was happy to see that centers for teaching the French language were opening up in Pakistan that facilitate greatly the transfer of French technology to Pakistan; that France was ahead not only in fashion and design but was forging ahead in mathematics, medicine, biology, and other scientific fields; French scientists had won Nobel prizes in physics; that 76 percent of the electricity used in France was supplied through nuclear energy. The French ambassador said that the telephone exchange recently inaugurated by Nawaz Sharif in Islamabad was established through a joint project with France and would give impetus to Pakistan's progress.

**Yeltsin on Criminalizing Exports on N-Arms, CWs**

*OW2112204892 Moscow INTERFAX in English  
1941 GMT 21 Dec 92*

[Transmitted via KYODO]

[Text] The Russian President Boris Yeltsin has suggested amendments to the Criminal Code of Russia.

The presidential amendments, submitted to Parliament on Monday [21 Dec], say that the export, in violation of the established rules, of raw materials, equipment, technologies and research and development information and services, that are used or can be used in the development or manufacturing of military equipment shall be punishable with a prison term of up to five years with or without the confiscation of property, or a fine of up to 50 minimum wages.

The export of raw materials, equipment and technologies that have peaceful uses but can be used to make nuclear, chemical or other weapons or mass destruction or missile-type delivery vehicles would be punishable with a prison term of three to 10 years with or without the confiscation of property, or a fine of up to 100 minimum wages.

**Yeltsin Orders Control of 'Dual-Use' Material**

*LD2912185392 Moscow ITAR-TASS World Service  
in Russian 1730 GMT 29 Dec 92*

[Text] Moscow, 29 Dec (ITAR-TASS)—On 28 December, Russia's President Boris Yeltsin signed instructions "on introducing controls [o kontrolye] over export from the Russian Federation of dual-use equipment and materials, and corresponding technology, used for nuclear purposes." The Russian Federation president's press service reports that the instructions endorse the list of equipment, materials, and also technology, as submitted by the government, the export of which is carried out by license.

Russia's Government has been instructed to approve the clause on procedure for control [kontrolya] over these exports.

**Russian, U.S. Technology Export Talks Previewed**

*OW3112155192 Moscow INTERFAX in English  
1455 GMT 31 Dec 92*

[Report by diplomatic correspondents Andrey Borodin, Igor Porshnev, and Dimitriy Voskoboynikov: from the "Diplomatic Panorama" feature—transmitted via KYODO]

[Text] An interdepartmental meeting was held in Moscow on Tuesday to discuss the position Russia should take at its forthcoming negotiations with the United States on the export of rocket technology and

dual-purpose KNOW-HOW. The meeting was, among others, attended by Supreme Soviet members.

One of the meeting's participants, Sergey Mikhailov, a member of the parliamentary Committee for International Affairs and Foreign Economic Relations, told DP [Diplomatic Panorama] the U.S. legislation contains more than 80 provisions restricting America's trade with Russia. In his opinion, this has nothing to do with ideology, the United States simply fearing market competition.

Some problems have been caused by the stance of the Russian Foreign Ministry. "The diplomats," he said, "for some reason think Russia must always take into consideration the interests of the United States and make concessions everywhere and at all times." This position "does not coincide with those of the other agencies concerned and that of the Supreme Soviet," he said.

Russian Foreign Economic Relations Minister Sergey Glazyev told DP there would be Russian-U.S. consultations on the problem in Moscow on January 11-13. He refused to comment of Russia's position, however, saying it had not yet been finally formulated.

The head of the Department of Control of Military Technologies, Sergey Chuvakhin, said in an interview with DP that, during the consultations, the Russians hope to resolve the disputes concerning the export of rocket technology. He said Russia demands that the United States end its discrimination against Russia in the world market of space services and science-intensive dual-purpose technologies.

"It will be fairly difficult to achieve this quickly since the Americans, as experience shows, stubbornly defend their economic interests."

According to Chuvakhin, Russia possesses a large number of carrier rockets capable of putting in orbit commercial satellites, including foreign ones. It will have more of them after Presidents Boris Yeltsin and George Bush sign the START II treaty in Sochi on January 3. That is a potential that makes Russia competitive in the world market of space services. However the country faces many obstacles here. Thus, 90 percent of the world electronic market is controlled by the United States. The U.S. legislation prohibits foreign countries to use in their satellites electronic components made in the United States without obtaining a license from it.

Chuvakhin cited South Korea's suggestion that the Russians put its satellites in orbit. But, since American chips were used in the satellites' processing systems, the Koreans had to ask the United States for consent. America refused, thwarting a bargain very profitable for Russia.

Chuvakhin pointed out that most of the present restrictive provisions were proposed in Congress by Democrats.



Commenting on Sergey Mikhailov's statements, Chuvakhin said the range of officials taking part in the negotiations on the export of rocket technology has considerably expanded in the past few weeks, strengthening Russia's position. As for different points of view on the issue, this, according to Chuvakhin, is normal whenever Russia's definitive position is prepared and discussed.

#### **Russia To Sign CW Convention in Paris**

OW2912145892 Moscow INTERFAX in English  
1441 GMT 29 Dec 92

[Transmitted via KYODO]

[Text] Russia is expected to sign the international convention on the prohibition of the development, production, accumulation and utilization of chemical weapons, and on their elimination. On Tuesday, the Russian Foreign Ministry circulated a statement which says that Russian representatives will arrive in Paris to attend the ceremony of signing this convention, to be held from January 13 to 15.

Moscow hopes that this document will become a universal international law, ensuring a reliable ban on the entire class of "barbaric weapons of mass destruction" - as the statement reads.

#### **Russia To Build Nuclear Power Station in PRC**

OW2312215092 Moscow INTERFAX in English  
1746 GMT 23 Dec 92

[From the "Trade and Investment" feature—transmitted via KYODO]

[Excerpts] A sharp rise in the turnover of Sino-Russian trade will be largely encouraged by the trade and economic agreements signed in Beijing during the recent visit there of President Yeltsin, INTERFAX was told by Mr Viktor Koptevskiy, head of the Asian Department of Russia's Ministry of External Economic Ties. He added that bilateral trade next year will amount to around \$6bn [billion], which would be almost 15% more than this year's turnover. [passage omitted]

**RUSSIA TO BUILD NUCLEAR POWER STATION IN CHINA.** The second most important economic document signed in Beijing by the two countries' leaders is an agreement on cooperation under which Russia is to build a nuclear power station in China, which will consist of two 1,000 MW [megawatt] reactors. Purchases of Russian equipment for the station, development of technical documentation for the project, and installation work will be financed by a \$2.5bn credit at 4

per annum which Russia will extend to China next year. The credit will be provided for 13 years, with two preferential years beginning from the date of putting the first reactor in operation. China will repay 10% of the credit in foreign exchange and the remainder in food-stuffs, consumer goods and industrial equipment.

According to Mr Koptevsky, the agreement is the largest agreement on R&D [research and development] cooperation signed by Russia with a foreign country.

#### **Russian 'Binary Bomb' Development Described**

##### **Revelations of Former Worker**

PM1512150192 Moscow NOVOYE VREMYA  
in Russian No. 50, Dec 92 (signed to press  
8 Dec 92) pp 46-48, 49

[Article by Oleg Vishnyakov: "'I Was Making Binary Bombs.' This Man Is Talking After Five Years of Silence. He Was Poisoned by Chemical Weapons Made by His Own Hands"]

[Text] Doctors of Chemical Sciences Vil Mirzayanov and Lev Fedorov revealed that, contrary to Soviet leaders' official statements, an extremely powerful toxic substance was created [sozdano] and successfully tested in the late 80's, a substance whose combat potential was much greater than that of all hitherto known types of such weapons. The scientists also gave a detailed interview to our journal.

In the wake of this, Vil Mirzayanov, who had worked for 25 years at the State Union Scientific Research Institute for Organic Chemistry and Technology [SUSRIOCT] where our chemical weapons were developed [razrabatyvalos] during the war and postwar years, was arrested on charges of revealing state secrets. Mirzayanov is free at the moment, but his case is still under investigation.

Leaders of Russia's military-chemical complex who, according to Mirzayanov's claim, were involved in the creation of the new substance code-named "Novichok" [newcomer], have neither confirmed nor denied this report, but have declared in unison that international agreements have not been breached under any circumstances because so far nobody has banned the development of chemical weapons as distinct from their production.

The scientists who confirmed the existence of the top secret "Foliant" program for the creation of a new class of toxic nerve gas code-named "Novichok" had only heard of it secondhand and therefore could not be considered reliable sources.

In the course of our journalistic investigation we realized that, in order to confirm the fact that new binary weapons were being developed in the USSR, it was necessary to find someone who had worked directly on "Novichok's" creation.

We succeeded in finding such a person.

He broke his silence after the television program devoted to this scandal. "Ostankino" journalists were allowed inside the SUSRIOCT to prove to them that chemical weapons were no longer being developed there.

### The "Generals" Are Still Chemicalizing

For five years now Andrey Zheleznyakov has been spending all his free time at a sculptor friend's studio, carving exotic wooden masks and figures. Andrey is a class two invalid, having lost his ability to work. He showed us a medical report—the list of ailments is mind-boggling: cirrhosis of the liver, toxic hepatitis, lesion of the trigeminal nerve, epilepsy.

He subsists on a pension of 1,118 rubles plus a supplement for the damage he has suffered. A total of some 2,500 rubles per month. True enough, he receives free medicaments and can at any time go for a rest at the St. Petersburg Institute of Hygiene and Occupational Pathology clinic, where leadership personnel from the country's military-chemical complex are treated.

Zheleznyakov's former employers are doing everything to make life easier for him. They demand just one thing in exchange: silence.

When Vil Mirzayanov was arrested at the end of October, former colleagues hinted to Andrey that something similar was lying in store for him as well. Why did he decide to tell me everything? Andrey says that he had thought about doing this for a long time, but the aforementioned ill-starred television program brought matters to a head. During the program, SUSRIOCT Director V. Petrunin declared that he was prepared to testify before any court: The institute is not engaged in any work at all on binary weapons at present. "I know for sure that this is a lie," Andrey Zheleznyakov told me. According to him, three of the institute's laboratories are right now experimenting with "Novichok's" latest upgrade (this should be "Novichok-9"—O.V.). The experiments should be completed by the new year.

Zheleznyakov, just like Vil Mirzayanov, is convinced: The generals cannot be trusted with the destruction of chemical weapons. The money received from the Americans for this purpose will for sure be channeled into the development of new and more powerful toxic substances.

### Conspiracy Rules

Andrey Zheleznyakov was born in the family of chemical scientists—his father was deputy people's commissar for the chemical industry in the early forties. Andrey followed in his parents' footsteps: Having completed his Army service in 1964, he joined the SUSRIOCT as a technician, then graduated from Moscow's Energy Institute.

Having qualified as an engineer, Zheleznyakov remained in "the box." He spent many years working on physical and chemical analysis of synthetic toxic substances. Initially these were soman-type substances, and later on a more up-to-date compound which the Soviet Union described as VX in all international treaties (the extent to which the Soviet variety of VX matched its U.S. counterpart is a different story). As a matter of fact, these

designations were never used even in conversations between scientists who, for conspiratorial purposes, used code names like "Product 33" and "Product 35."

"It was well and truly a conveyor belt," Andrey recalled. "Each day we received a product, measured its properties, and sent it further down the chain."

The product was then sent on to Section "B" for biochemistry, where the new compound was tested on rats, dogs, and monkeys.

The office of the test engineer, which Zheleznyakov held, was considered one of the most prestigious at the institute. The testers were dealing with end products. As a rule, the other staffers had no idea of what exactly they were developing and producing. Each of them did his own job and did not know what was being done "next door." It was not the right thing to show interest.

Zheleznyakov recalls that the system of secrecy at the institute was fine-tuned down to the tiniest detail, a special pass was required for each laboratory, nothing could be brought in or taken out, there were secret notebooks, special document cases, reliable safes:

"If, for example, you had to go to the toilet, the notebook had to be put in a document case and the document case inside a safe. Everything was locked and sealed. Waste was incinerated. To top it all, 'First Department' [security] staffers rummaged around the dustheaps every day, looking for secret documents."

### No Matter What Kuntsevich Says

Presumably by the late 70's Soviet scientists had succeeded in synthesizing a completely new type of toxic nerve gas. Experiments with binary chemical weapons on its basis began at the institute in 1982. Zheleznyakov was involved in these tests from the very beginning. He and another five persons made up a separate group dealing exclusively with the new binary weapon and came directly under Institute Director V. Petrunin.

According to Andrey, there were no more than 20 persons at the institute who knew about the "Novichok" tests, all operations were conducted in the strictest secrecy. It was actually in 1982 that Anatoliy Kuntsevich, one of the chief "chemical generals" (now leader of the Committee for Conventional Problems of Chemical and Biological Weapons under the Russian president), officially declared that the USSR had no intention of responding to the creation of binary weapons by the Americans.

Zheleznyakov assembled the test installation which was to become his main job for the next five years. The installation was used to blend two components, with engineers monitoring what was happening at the completion of the process. The main task was to measure the temperature of the end product—the higher the temperature during the blending, the more toxic the substance.

Before the test, the initial temperature was set on a thermostat, ranging from minus 50 to plus 50 degrees, depending on the target against which weapon was assumed to be used. The installation itself was in turn housed inside a fume cabinet where the highly toxic substances were concentrated and then released in the sky above Moscow through special filters (highly unreliable, according to Andrey).

By no means was everyone striving for success. The laboratory often received substances whose specifications were completely different from what the documentation showed. There were obviously some people keen on wrecking the experiments. Andrey inclines to think that "Novichok," just like other of the institute's secret products, provided an arena for clashes between the personal interests and ambitions of numerous chemical industry chiefs whose main preoccupation was to ensure their own personal success and "sink" their rivals.

In the spring of 1987 the laboratory tests of the binary weapons ("Novichok-5" by that time) were approaching completion. Zheleznyakov's group was working twice as hard. The institute's leadership was chasing them—the experiments should be concluded by the end of May so as to enable them to complete an application for the Lenin Prize by August.

The first alarm bells sounded one week before the accident. Following a routine experiment, Zheleznyakov suddenly felt both his eyes going miotic (miosis—contraction of the pupils—is the first sign of poisoning). Andrey recalls that even then he thought to himself: Something is wrong with the fume cabinet. He did not contact the local medical unit, since this was considered by institute staffers to be almost tantamount to treason: If you end up in the medical unit you would be letting down your chief, who would be held responsible. Incidents of poisoning were thoroughly concealed.

The weather during those days in May was exceptionally hot and dry. The conduct of experiments in such weather was banned under all safety norms in the institute. But the generals forgot all about this in their pursuit of the Lenin Prize....

On that day Zheleznyakov arrived at the laboratory as normal. A degasification had been scheduled—the installation was dismantled after each test and was washed down with a degasifying solution for a whole day. The next day would see the last test, and then he would go on leave. Andrey was seriously thinking of resigning from "the box"—his wife, a painter and modeller by profession, was planning to lease a studio, they had enough money.

Zheleznyakov switched on the fume cabinet (it was switched off overnight)—it seemed to be functioning, he opened the casing, and suddenly felt he had got a "lungful."

"I saw rings before my eyes—red, orange. Bells were ringing inside my head, I choked. Add to this the feeling

of fear—as if something was about to happen at any moment," Andrey recalls. "I sat down, and told the guys: I think it has 'got' me. They dragged me out of the room—I was still able to move—and took me to the chief. He looked at me and said: 'Have a cup of tea, everything will be fine.' I drank the tea and immediately threw up.

"They took me to the medical unit, where I was injected with an antidote. I felt a little better. The chief told me: 'Go home and lie down. Come back tomorrow.' They assigned me an escort, and we walked past a few bus stops. We were already passing the church near Ilich Square, when suddenly I saw the church lighting up and falling apart. I remember nothing else."

The comrade took Andrey on his back and somehow dragged him to the medical unit. The terrified physicians, instead of giving him first aid, were in too much of a hurry to don protective clothing.

It can be said that Zheleznyakov was lucky. He was sent to the Sklifosovskiy First Aid Institute's Poison Treatment Center, where Doctor Vedernikov saved his life.

#### The "Secret" Patient

Our conversation with Yevgeniy Vedernikov in the almost deserted hospital ward was every now and again interrupted by the clatter of a trolley's wheels—another patient was being brought in.

That was how Zheleznyakov was brought in five years ago. In addition to the medics, he was also accompanied by several persons in civilian clothes. The first thing the KGB staffers did was to get the first aid physicians to sign a no-publicity pledge. When asked what had happened, they replied that Zheleznyakov had been poisoned by eating some sausage.

According to Vedernikov, Andrey's condition was critical. His heart was hardly beating, the level of choline esterase (a substance which plays an important role in the transmission of nerve impulses) in his blood had dropped to almost zero. Going by these symptoms, the physicians could only guess at the cause of the poisoning. Naturally, nobody believed the "sausage" story.

Zheleznyakov spent 18 days and nights at the intensive care unit, hovering between life and death.

For six weeks Andrey was unable to walk, he lost 35 kg in weight. He was kept in strict isolation—no visitors, no outside contacts, no parcels. Being someone who had accidentally been exposed to the effects of a new toxic substance, Zheleznyakov was of great interest to the country's military-medical science. Each new physician who examined the "secret" patient—whether a therapist, a neuropathologist, or a toxicologist—had to sign the KGB's no-publicity pledge. They were all insistently "requested" to forget this particular case.

Zheleznyakov spent a further two months at Leningrad's Institute of Hygiene and Occupational Pathology before



returning home. He was moved to Leningrad almost surreptitiously. When bidding him farewell, the "Committee men" yet again instructed him to keep silent.

An investigation was conducted at the institute following the incident with Zheleznyakov. The SUSRIOCT leadership decided to "pin" everything on the victim—he himself was to blame, they claimed: He had breached safety procedures.

Zheleznyakov was not informed of the investigation's results, but he knows for sure that the degasification norms and the safety procedure rules at the institute were reviewed.

A conciliation commission was set up when Andrey returned from Leningrad. Initially, during a confidential conversation, his colleagues suggested that Andrey should accept all the blame for the accident so as "not to let the friends down." He refused, and another suggestion followed: To share the blame on a fifty-fifty basis with the institute. They failed to persuade him, Andrey firmly stuck to his guns. Finally they conceded, evidently afraid that Zheleznyakov might have a few stories to tell. After all, that was happening in 1987—the year when glasnost flourished.

He was thus left in peace. He was classified as an invalid, he was given a pension, the institute pays the supplement for the damage he has suffered from its own director's fund. For five years he honestly observed the rules of the game—and kept silent. He no longer intends to do this.

There is one loose end left in this story—the Lenin Prize. We know that the "Novichok" program was frozen following the unfortunate accident. But tests were resumed a year later. Even though it was delayed, the "chemical generals" did receive the Lenin Prize—in the spring of 1991.

We assumed that this coveted prize was actually awarded to the binary weapon based on "Novichok." The generals had dug out the old files, produced yet another batch of the substance, reported to "the top," and received the prize from the hands of Mikhail Gorbachev himself.

But, as NOVOYE VREMYA's correspondent was told by a former SUSRIOCT staffer who asked to remain anonymous, at that time—in early 1991—the generals decided to play it safe and based their application for the prize not on "Novichok," which was still being developed, but on the old and tested toxic substance declared by us in the draft Geneva Convention as VX.

If this is really so, our prize winners have not only deceived the Americans but have also, to put it mildly, misled their own country's leadership regarding their successes in the military-chemical sphere.

NOVOYE VREMYA continues its investigation.

### Revelations Dismissed as 'Fantasies'

PM2112161592 Moscow PRAVDA in Russian  
19 Dec 92 p 2

[Interview with Aleksandr Gorbovskiy, chief of the Committee for Conventional Problems of Chemical and Biological Weapons under the Russian Federation president, by Vitaliy Kaysyn; place and date not given: "Myths and Reality of Chemical Disarmament. It Is Easy To Make a Sensational Statement. It Is Harder To Prove It with Facts"—first paragraph is introduction]

[Text] Since September of this year the mass media both inside and outside the country have been carrying sensational reports by the chemical scientists Lev Fedorov and Vil Mirzayanov, who accuse Russia of making mistakes in past activity in the sphere of chemical arms and of taking unacceptable approaches today to the problems of chemical disarmament. We put specific questions to the Committee for Conventional Problems of Chemical and Biological Weapons under the Russian Federation president for the purpose of obtaining explanations on certain acute questions. Aleksandr Gorbovskiy, chief of this committee, replied.

[Kaysyn] Numerous articles, including those by Fedorov and Mirzayanov, state that the stockpiles of chemical weapons in Russia reach 70,000 tonnes, although far less has been declared officially. How would you comment on this?

[Gorbovskiy] Russia's chemical weapon stockpiles total 40,000 tonnes of toxins, and the places where they are stored have been officially announced by our state. They are subject to monitoring under international verification. The desire of certain "competent" specialists to impart their knowledge results in lies.

[Kaysyn] The 1989 events in Tbilisi and the use of chemical gases there are being discussed in the press to this day. Fedorov, for example, maintains that at the time, under cover of CS, a whole group of other, more powerful toxins was being tested.

[Gorbovskiy] I was involved in evaluating the events in Tbilisi as an investigation expert, and I officially declare that those reports are false. The Ministry of Internal Affairs Troops used two substances at the time: chloroacetophenone and CS, which are used throughout the world to combat disturbances.

[Kaysyn] Yet toxins such as dioxin have been created, and also, maybe, toxins quite unknown to us ordinary citizens of Russia?

[Gorbovskiy] Dioxins are a special case. The thing is that this group of toxic compounds is formed in many manufacturing processes in the production of pulp, herbicides, and chlororganic substances.

Scientists learned of the insidious properties of dioxins only after a large number of national economic products had been produced, including with the addition of

dioxins. You would have a right to ask chemical scientists for their belated reaction to the danger posed by production of certain national economic products.

The desire to drag dioxins into the problem of chemical weapons and also to speak of their purposeful production can only be regarded as provocative.

[Kaysyn] The draft program for the destruction of chemical weapons, in whose elaboration the Committee for Conventional Problems was involved, is now being discussed. To judge from critical statements, the draft program touches only on international commitments with regard to destruction and on inspection activity, for which, incidentally, hundreds of thousands of dollars are being requested. At the same time the elimination of the consequences of past production of toxins is not taken into account.

[Gorbovskiy] The thing is that our desire alone to free the whole world from the threat of chemical weapons and to sign the convention is not enough. It is necessary to have a material base for the destruction of our stockpiles in accordance with the schedule under the convention: 1 percent three years after the convention comes into force, 20 percent after five years, 45 percent after seven years, and so on. Unless an industrial base is created in the very near future for the large-scale destruction of stockpiles, Russia will be unable to ratify the convention, and the process of chemical disarmament could slow up. As regards the currency expenditure, it is earmarked to pay for the activities of international inspectors at the rate of \$400 per diem each. They will inspect installations on Russian territory. In accordance with Article 4 of the convention, these costs are borne by the country that is subject to verification.

Finally, about eliminating the consequences. The environment has been polluted for many decades as a result of the work of enterprises in various sectors of industry. At the same time the functioning of toxin production facilities at several points, with the necessary norms of protection and security being ensured, has been unable to substantially exacerbate the ecological situation in the country over the span of 10-15 years. There is a problem, however, and it must be resolved at a state level.

[Kaysyn] I know that, following publication of the article "Poisoned Policy" in MOSKOVSKIYE NOVOSTI, the Moscow Committee for Nature conducted a careful check on observance of nature conservation resources and soils at the Russian State Scientific Research Institute of Organic Chemistry and Technology on behalf of A. Yablokov, adviser to the Russian Federation president. It arrived at the conclusion that the facts set forth in the article do not tally with reality. Yet the articles by Lev Fedorov and Vil Mirzayanov cannot be considered exclusively negative: Thanks to such articles, the public learns something about chemical installations and about the possible danger.

[Gorbovskiy] This is justified if the information is objective. And yet it is manifestly obvious that Lev Fedorov is

trying to become a national fighter for chemical disarmament. Too late, however—since 1987 our country has irreversibly adopted a policy of banning chemical weapons under strict international verification and concluding the convention as soon as possible. The data on installations, which Fedorov "sensationally" produces, have already been passed to the United States on a reciprocal basis and will be monitored in the course of inspections.

[Kaysyn] Maybe he possesses more serious facts?

[Gorbovskiy] Fedorov possesses no more detailed information than fantasies.

### **Udmurtia Charges Group With Uranium Theft**

*MK2312160192 Moscow KOMMERSANT-DAILY  
in Russian 23 Dec 92 p 17*

[Report by Olga Kiyenko: "Uranium Thieves Seized. One More Uranium-Smuggling Route Closed"]

[Text] Udmurt Republic Prosecutor's Office investigators yesterday filed criminal charges against a criminal grouping suspected of stealing uranium from a closed enterprise in the city of Glazovo. Thirteen people have been arrested, five of whom are citizens of Belarus and Latvia. Some 80 kg of uranium have been confiscated from them.

The Udmurt Prosecutor's Office informed KOMMERSANT-DAILY's correspondent that the investigators are in the process of determining how long the thefts from the enterprise have been going on. The investigators are inclined to believe that the quantity of uranium confiscated does not represent the only theft committed by this grouping. According to preliminary data the criminals had forged ties with second-hand dealers in Belarus and Lithuania, who were transporting the uranium to Poland. The investigation has not yet ascertained what prices the thieves got for the radioactive commodity. A panel of experts has been appointed to establish the confiscated uranium's level of radioactivity.

Radik Nurdinov, an Udmurt Republic Prosecutor's Office investigator, refused to give any further details of the investigation because not everybody has been arrested yet.

KOMMERSANT-DAILY experts, commenting on the grouping's arrest, note that, back in February this year, 1 kg of enriched uranium was fetching in the order of \$700,000 on the Western black market. In Poland, as a rule, radioactive substances smuggled there from the former USSR are being acquired by second-hand dealers. They, in turn, pass them further along the chain—to the Near East, for example. Experts also note that the law-enforcement organs' actions in arresting this grouping can be called the second major success in the struggle against the organized theft of uranium. The first

was in 1990, when USSR KGB staffers succeeded in closing the route of smuggling radioactive substances into Poland via Lvov.

The investigation group has promised to publicize details by 12 January, when the results of the expert analysis will be known, and it is also possible that there will be arrests of other members of the grouping and officials at the enterprise, who are suspected of negligence in storing the uranium.

#### **Planned Sales in Poland Thwarted**

AU2312103092 *Paris AFP in English*  
1012 GMT 23 Dec 92

[Text] Moscow, Dec 23 (AFP)—Thirteen people have been charged with the theft of 80 kilograms of uranium from a plant in Russia's Volga region which they planned to sell in Poland, the Russian daily *COMMERSANT* reported on Wednesday.

Prosecutors in the republic of Udmurti said the 13 people, including five Belorussians and Lithuanians, smuggled uranium stolen from a plant located in the town of Glazovo into Poland, through Lithuania and Belarus.

Chief Prosecutor Radik Nurdinov said other people connected with the illegal contraband would be arrested, including some employees of the uranium plant who might have received kickbacks.

*Commersant* quoted experts as saying that uranium began appearing in the West last February and was sold at about 700,000 dollars a kilogram to middle men who have clients in the Middle East.

KGB officials in 1990 arrested uranium smugglers who had set up a ring from the west Ukraine city of Lvov.

Enriched uranium is the main material used to build nuclear bombs.

#### **Udmurtia To Build Toxin Neutralization Facility**

PM2312140392 *Moscow KRASNAYA ZVEZDA*  
in Russian 23 Dec 92 p 2

[Privo Press Center report: "Destroying Chemical Weapons"]

[Text] In accordance with the Russian President's directive "On Priority Measures in Preparing To Fulfill Russia's International Commitments Regarding the Destruction of Chemical Weapon Stocks," a routine session of the Chemical Disarmament Convention Committee has adopted a decision to build in Kambarka (Udmurt Republic) a terminal for the unloading [rassnaryazheniye] of containers of toxic chemicals of the "lewisite" type and for their neutralization, the Volga Military District has reported to the editorial office.

#### **Russia, Ukraine Talks on Nuclear Arms Planned**

OW2912150692 *Moscow INTERFAX in English*  
1441 GMT 29 Dec 92

[Transmitted via KYODO]

[Text] The Ukrainian Ambassador to Russia, Vladimir Kryzhanovsky, and the head of the Disarmament Department of the Ukrainian Foreign Ministry, Konstantin Grishchenko, said today at a press conference in Moscow that Russian-Ukrainian negotiations on the nuclear weapons stationed in Ukraine will shortly start in Moscow. They said Ukraine still intends to have nuclear weapons removed from its territory but it has certain conditions to make.

These include nuclear states' guarantees that they will not use force against Ukraine and will give it assistance in the utilization of its nuclear armaments for civilian purposes. According to Grishchenko, the amount of aid needed may reach \$1.5 billion, the \$175 million recently allocated by the USA being only part of the sum required. Ukraine, he said, expects assistance to be given not only by the USA but also by other countries, including Russia.

Ukraine also insists on having control of the nuclear armaments stationed on its territory. It will protest if the CIS Joint Armed Forces put the weapons under Russian authority. Ukraine also wants powers to cancel orders to launch its intercontinental ballistic missiles given from without.

Kryzhanovsky and Grishchenko also said Ukraine regards as its property all components of the warheads of those weapons, including plutonium and uranium. After the warheads are dismantled, Ukraine must be able to use them in civilian production or sell them abroad, they said.

#### **Ukraine Leader Interviewed on N-Arms Policy**

PM2312211592 *Moscow ROSSIYSKIYE VESTI*  
in Russian 24 Dec 92 p 2

[Interview with President of Ukraine Leonid Kravchuk by TASS correspondents V. Vozianov and A. Trotsenko, exclusively for *ROSSIYSKIYE VESTI*; place and date not given: "The Ukrainian Leadership's Concept of Nuclear Weapons"]

[Text] [RV] Leonid Makarovich, from the first days of its existence, Ukraine firmly stated its desire to become a nuclear-free, non-bloc state. But many mass media assert that Ukraine is taking its time with the destruction of strategic nuclear weapons....

[Kravchuk] Ukraine's approaches to nuclear weapons, including what is stationed on Ukrainian soil, were defined by our Supreme Soviet. As is known, the Declaration on Ukraine's State Sovereignty which the Supreme Soviet adopted 16 July 1990 proclaimed Ukraine's intention to become in the future a state which



does not belong to military blocs and which observes the three nonnuclear principles: not to accept, not to produce, and not to acquire nuclear weapons.

Confirming this intention, the Supreme Soviet declared 24 October 1991: Ukraine will pursue a policy aimed at the total destruction of nuclear weapons and the components of their basing located on the territory of the Ukrainian state. Ukraine intends to do this within the minimum time, proceeding from its legal, technical, organizational, and other potential, and with the appropriate guarantees of ecological safety. Right then, Ukraine, as one of the legal successors of the former USSR, assured the world that it would observe the provisions of the 1991 Treaty between the United States and the USSR on the Reduction of Strategic Offensive Arms as regards the part concerning nuclear weapons located on its territory. On the other hand, aware of the high level of responsibility to the world for ensuring that nuclear war may not flare up from Ukrainian soil, we declared Ukraine's right to carry out its own verification of the nonuse of nuclear weapons located on its territory. At the same time Ukraine pledges to take the appropriate steps to ensure the physical safety of such nuclear weapons.

Seeking to make its contribution to the strengthening of the international nuclear weapons nonproliferation regime, the Supreme Soviet also proclaimed Ukraine's intention to accede to the Nuclear Weapons Non-Proliferation Treaty as a nonnuclear state and to conclude the appropriate agreements with the IAEA concerning guarantees. A course was set for the implementation of the broad conversion of the defense industry, and for the reorientation of part of the military-industrial potential toward the needs of economic and social development.

That, in short, is our "nonnuclear" concept. It is determined, I repeat, by Ukraine's parliament, and no one except parliament is empowered to alter it.

Ukraine's president and government are implementing this concept, including by way of negotiations with other states.

The START Treaty and the Nuclear Weapons Non-Proliferation Treaty have now been passed to Ukraine's Supreme Soviet for ratification. I hope that it will approve these two important documents. The parliamentarians of course are entitled to express their attitude not only to the treaties as a whole but also to specific clauses. But I am convinced that their possible observations will not diverge from those fundamental principles of Ukraine's nonnuclear status which were formulated earlier by our Supreme Soviet.

[RV] Not so long ago Jimmy Carter, the former president of the United States, visited Moscow on an assignment from President-Elect Bill Clinton and told journalists: If Ukraine continues to delay with the the elimination of nuclear weapons, the United States will draw a negative conclusion from this as regards the aid

which the United States intends to render to this state. Could you comment on that statement?

[Kravchuk] I have already said repeatedly, and I declare once again, that Ukraine adheres fully to the principles of its nonnuclear status which it has proclaimed. But as regards "delaying with the elimination of nuclear weapons" such an accusation cannot be leveled against Ukraine.

Of course, I realize the desire of people to see as soon as possible a state which will set the whole world an example of ridding itself of the nuclear Moloch. We also desire that. At the same time we hope that Ukraine will not stand alone here and that other nuclear states will take the same path.

Here I would like to recall that the U.S. Senate needed more than a year to study the START Treaty and all the consequences of its implementation for the nation's security and economy before that treaty was approved. As regards Ukraine, with its incomparably smaller professional potential in this sphere, it is expending far more effort and energy in order to expedite the adoption of a similar decision, while, of course, being fully conversant with the matter in hand.

[RV] The mass media have disseminated a translation of an article by William Potter entitled "Ukraine's Nuclear Trigger" which was published in THE NEW YORK TIMES. Its author made the following forecast: "The Clinton administration will possibly have to encounter its first major foreign policy challenge in Ukraine." In your opinion, does this reflect Washington's official position?

[Kravchuk] I had a telephone conversation with B. Clinton almost immediately after his election to the U.S. presidency. From it I derived my conviction that the fruitful dialogue and cooperation, the foundations of which were laid jointly with the administration of President G. Bush, will develop successfully. In any case, for my part I will do everything possible to see that partnership, cooperation, and friendly relations between the Ukrainian and American peoples will strengthen and deepen.

[RV] Is it possible that, say, just one of the 176 strategic missiles located on Ukraine's territory may be launched from one center or another? What kind of control exists here on the part of the president of Ukraine?

First of all it must be noted that the technical potential of the system of centralized combat control of the Strategic Rocket Forces makes it possible to carry out both a selective launch of one or several ICBM's from among those stationed on Ukraine's territory and also a simultaneous launch of all 176 missile. In so doing, all the designated launches can be carried out only at the command of the president of the Russian Federation who has total control over the system of centralized combat control of the Strategic Rocket Forces.

As for control by me; today I have the opportunity to block the unsanctioned use of nuclear weapons from the territory of our state. This is effected as follows: For the command and control bodies of the large units and units of the Strategic Rocket Forces stationed on Ukraine's soil special signals have been established which make it possible to block the launch of ICBM's when the order to launch has not been agreed with the president of Ukraine. For these same purposes a special direct line has been installed with the command of the strategic nuclear forces stationed on Ukrainian soil.

At the same time I do not have and do not seek to obtain the technical potential for the autonomous launch of nuclear tipped missiles.

### **Ukraine Demands Guarantees From Nuclear Powers**

*OW2512184292 Moscow INTERFAX in English  
1829 GMT 25 Dec 92*

[Transmitted via KYODO]

[Text] The Ukrainian Foreign Minister Anatoliy Zlenko has drawn attention to the need for resolving a number of major problems, as his country moves towards the ratification of the strategic arms reduction and nuclear arms non-proliferation treaties. Speaking in Kiev on Friday Zlenko said that he was referring to nuclear guarantees Ukraine wants to have from the nuclear powers, as well as economic aspects of the dismantling and elimination of nuclear arms. The Ukrainian Foreign Minister said that the parties concerned continued the negotiations on all those questions.

### **Security, Safeguards Sought**

*PM2912155592 Moscow IZVESTIYA in Russian  
30 Dec 92 Morning Edition p 1*

[Report by Aleksey Portanskiy: "Ukraine Confirms Its Intention To Become Nonnuclear State"]

[Text] "Ukraine is moving toward nonnuclear status and will not be deflected under any circumstances—as its president and prime minister have repeatedly stated," Volodymyr Krzhanovskiy, Ukrainian ambassador in Moscow, stressed during a news conference Tuesday.

The ambassador recalled that his country stated its intention to become a nonnuclear state two years ago during the declaration of sovereignty. Ukraine, he particularly stressed, has been the first to set an example to the other nuclear states in stating that it wants to completely rid itself of nuclear weapons.

So far Ukraine has clearly carried out on time all the accords pertaining to the withdrawal of tactical nuclear weapons from its territory. Nonetheless, for some reason unknown to Kiev, repeated accusations have been leveled against it in the world's press on this score. Ukraine is now talking about its intention to subscribe to the START and nonproliferation treaties, and once again, Krzhanovskiy noted, the world's press and certain politicians have been leveling unfounded complaints against us.

Ukrainian representatives have explained that the normal process of examining the two treaties is under way in their country's parliament. It was noted that U.S. and Russian experts examined the START Treaty for an entire year, and that prior to this the treaty had been under preparation by the USSR and the United States for nine whole years. So why do many people now believe that the Ukrainian parliament should ratify the treaty immediately, forgetting about its responsibility to its own people?

There is a whole string of specific problems of a technical and financial nature which, if left unresolved, will make it impossible for Ukraine to subscribe to the START Treaty. The Ukrainian Foreign Ministry includes in these problems, in particular, the provision of security guarantees for the republic, the resolution of the question of the fate of nuclear material installed in munitions deployed on Ukrainian territory, and the safeguarding of the security of nuclear weapons on Ukrainian territory.

One of the most important issues is that of economic safeguards for Ukraine's nuclear disarmament. It was on this point that IZVESTIYA's correspondent asked V. Krzhanovskiy to be more specific.

"Ukraine is indeed in a very difficult economic position," the ambassador stated, "and implementation of nuclear disarmament measures will require a great deal of expenditure. Ukraine would like a guarantee that a large proportion of the funds for these purposes will be obtained from its partners in the nuclear community. There are now some signs that the world understands our needs—the Americans have stated that Ukraine will be granted around \$175 million for priority work on these issues. But our calculations show that the final spending figure will be far higher. We would like some economic guarantees on aid. The world community should realize that if it wants nuclear weapons to disappear from a territory of 602,000 square km in the space of seven to eight years, it must make an effort to that end rather than just verbally coercing us," the ambassador stressed.

Krzhanovskiy did not give any specific timetable for when Ukraine would subscribe to the START and non-proliferation treaties. At the same time, he stressed that his country will strive to do so as rapidly as possible.

**Financial Assistance Needed**

*PM2912203792 Moscow ROSSIYSKIYE VESTI  
in Russian 30 Dec 92 p 1*

[Report by Pavel Vasilyev: "Ukraine Ready To Quit 'Nuclear Club.' But for This It Will Need \$1.5 Billion"]

[Text] This statement was made yesterday by Vladimir Kryzhanovskiy, Ukrainian ambassador in Moscow, and Konstantin Grishchenko, chief of the Ukrainian Foreign Ministry Department for Problems of Arms Limitation and Disarmament.

"As much as two years ago," Vladimir Kryzhanovskiy pointed out in particular, "Ukraine announced for the first time in the history of the civilized world that it intended to do away with nuclear weapons entirely. But that sincere desire is encountering a number of serious difficulties. First, we are being held back by the grave economic situation, which does not let us allocate the necessary funds to the antinuclear program. Second, we must receive guarantees from the great powers on the nonuse of nuclear and other weapons of mass destruction against our country."

The ambassador's words were supplemented by his colleague from Kiev, Konstantin Grishchenko.

"The United States," he said, "is prepared to allocate \$175 million to implementing this project. But, according to our calculations, a considerably larger sum will be required—it could exceed \$1.5 billion or 500

billion rubles. We believe that it will be sensible if most of these costs are borne by the United States and our closest neighbors, not excluding Russia."

In addition to these main reasons preventing the Ukrainian parliament from ratifying the Soviet-U.S. treaty on strategic offensive arms, in the diplomats' opinion, Ukraine also has other wishes. It has a right to recover all useful components (highly enriched uranium and plutonium) removed from Ukrainian nuclear weapons or their cost, and it must have the technical possibility of preventing any launch of nuclear missiles from its territory not sanctioned by the country's leadership and of ensuring the safety of nuclear charges sited temporarily on Ukrainian territory.

**Georgian Parliament Discusses Nuclear Issues**

*OW2212204892 Moscow INTERFAX in English  
1915 GMT 22 Dec 92*

[Transmitted via KYODO]

[Text] The Georgian Parliament on Tuesday [22 Dec] discussed a law on defense which forbids the production, storage, or transport across Georgian territory of nuclear weapons or other devices for mass destruction. Georgia likewise may not initiate fighting or declare war, unless she herself is an object of aggression.

The major point of contention during the debate centered on the question of, if Georgia becomes a neutral nation, does she need to enter any alliances. As it stands, the issue still has not been decided.

## GERMANY

### Nuclear Warheads From Ex-USSR Not Sold to Mideast

LD2712100592 Hamburg DPA in German 0600 GMT  
27 Dec 92

[Text] Bonn (DPA)—Speculation that nuclear devices have allegedly been moved from the Community of Independent States (CIS) to countries of the Middle East has so far not been confirmed, according to the president of the Federal Intelligence Service (BND), Konrad Porzner. The probability of an unnoticed removal of nuclear warheads from secure storage facilities of the former Soviet Union was small for the time being, Porzner said on Sunday in an interview with DPA.

"We have so far found no black market in weapons-grade nuclear material, highly enriched uranium, and plutonium," Porzner said. The cases that had arisen so far of illegal sales of nuclear material had involved no weapons-grade fissile material. Nor had there been any proof that nuclear weapons specialists from the CIS had emigrated to the Third World. Nevertheless, about 100 former Soviet nuclear scientists were involved in civilian programs, for example in the construction of nuclear power plants in other countries.

According to the information available to the BND, which is responsible for intelligence-gathering abroad, the strategic nuclear weapons of the CIS forces are still concentrated in Russia, Belarus, Ukraine, and Kazakhstan. Since July 1992, tactical nuclear weapons had been stored exclusively in Russia, Porzner said. They were held in well-secured depots, strictly separated from the carrier weapons. Their destruction had also begun in July. The Russians stopped the development of biological weapons in April this year as well. The destruction of the 40,000 or so tonnes of chemical weapons would probably take 15 years.

Roughly one fifth of the former Red Army personnel withdrawn from Germany have been entirely restationed in Russia west of the Urals, Porzner continued in a DPA interview. Since January 1992, troops and materiel from the former GDR have been transferred only to Russia, with the exception of one division which has been moved to Belarus. Chancellor Helmut Kohl agreed during his visit to Moscow in mid-December that Russia would complete its troop withdrawal from eastern Germany by August 31, four months ahead of schedule.

According to the BND president, Russian servicemen had great misgivings about the future due to the professional and personal prospects awaiting them at home. They were trying to delay their transferral for as long as

possible. It was becoming increasingly more difficult for officers to identify with "their" army. There was a lack of direction in political terms. Porzner pointed out that officers were also selling weapons, fuel, and other materiel belonging to the CIS armed forces.

### TV Reporters Offered East European Plutonium

LD2712151792 Hamburg DPA in German 1347 GMT  
27 Dec 92

[Text] Cologne (DPA)—Apart from illegal trade in weapons, gangs from the former eastern bloc are apparently also organizing the sale of radioactive materials. Two reporters from the 'Monitor' television program were offered fighter aircraft, plutonium, and uranium by such dealers, the magazine program reported this weekend, anticipating a report in its Monday evening program. An ex-superintendent in the GDR People's Police is allegedly a central figure.

The journalists, who posed as potential buyers acting on behalf of the government of a country under an international arms embargo, were offered in Warsaw 30 kilos of enriched uranium 235 and six kilos of highly toxic plutonium. An ex-state secretary of the Polish Culture Ministry who is currently being sought by the judicial authorities was the seller of the nuclear weapons material. The price he asked was about DM two million per kilo of plutonium and about DM 800,000 per kilo of uranium 235. In the meantime, the Federal CID has begun investigations, the program reported.

The ex-GDR superintendent, 'Monitor' further reported, was based in Dresden and was offering weapons from Poland, the Ukraine, and Russia. The journalists were guaranteed a supply of heavily armed patrol boats from Poland and 15 MiG 29 fighter aircraft from Ukrainian army stocks. The ex-policeman wanted to organize secret exports to the former Yugoslavia himself, disguised as "humanitarian aid."

In Warsaw, the reporters also concluded a preliminary contract for the supply of 15 speed boats to an embargoed country, said the magazine. During the two days of negotiations, the circumvention of the embargo also was openly discussed with the journalists. In the event that Poland was only able to supply unarmed warships, the Dresden arms dealer promised to see to the provision and transport of weapons.

In the Federal Republic several cases of smuggling involving radioactive material were uncovered last year. In October the authorities made their biggest haul: A container of Caesium 137 weighing 17 kilos was discovered in Frankfurt station, and a second container with three capsules of Strontium 90 was found in the trunk of a car. Three Poles and a German were detained.



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